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ABSTRACT

Because of the duration and magnitude of this overal project, maintaining inter-rater reliability presented several problems. Since the study was designed to compare teacher behavior across a three-year time span, it was necessary to maintain reliability across that time period. The use of student raters posed additional problems of mobility and lack of professional commitment. In order to reach and maintain the desired levels of reliability, solutions to these problems were devised in two major areas: (1) commitment building-activities designed to make the raters believe that the work they were doing was worthwhile and important; and (2) training-activities designed to help students reach the desired level of reliability on ratings. The major portion of the document contains the actual training modules used in the rater training activities. (Author/PC)

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MAINTAINING RELIABILITY in a LONGITUDINAL STUDY

Interim Report No. 1
National Institute of Health
Grant No. 5 PO 1 MH 19871

by

F. N. Roebuck
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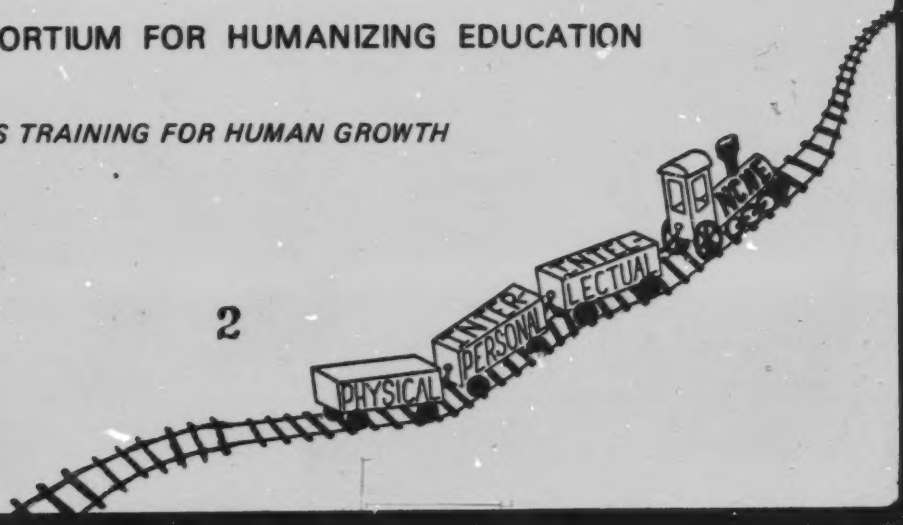
SKILLS TRAINING FOR HUMAN GROWTH



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Interim Report Number 1

of the

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Northeast Louisiana University

Monroe, Louisiana

1974

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MAINTAINING RELIABILITY IN A LONGITUDINAL STUDY

Because of the duration and magnitude of this project, maintaining inter-rater reliability presented several problems. Since the study was designed to compare teacher behavior across a 3-year time-span, reliability had to be maintained across that same period. That is, if a particular kind of teacher behavior was rated "2.5" in September, 1971, then an occurrence of that same kind of behavior in April, 1974, must also be rated "2.5."

Because of the magnitude of the project, with several thousand hours of instruction to be rated each year, a large crew of raters was necessary. The only appropriate and readily-available labor pool from which to draw these raters was the students at Northeast Louisiana University. However, the use of student labor posed additional problems.

1. Mobility--Students graduate, leave school, get married, no longer need to work, or find a different job. Change in rater-crew membership from semester to semester was approximately 30%. Only one member of the rating crew in the Spring of 1974 had also been a member in the Fall of 1971.

2. Lack of Professional Commitment --To the students, rating was "just a job"--they had no investment in high quality accuracy. Furthermore, after the first fifty or so tapes, listening to them became a very monotonous activity. We planned to rate 6,000 tapes.

In order to reach and maintain the desired levels of reliability, solutions to these problems were devised in two major areas: (1) Commitment Building and (2) Training. The success of these efforts were constantly evaluated through Reliability Checks and the results of the checks were fed back to the raters as individual reliability scores. Raters who fell below standards were recycled through training before being allowed to rate again.

Commitment Building activities were designed to elicit within the raters the beliefs that (1) the work they were doing was worthwhile and important and (2) they were "special" because they had earned the right to do this work. The activities carried out included:

1. Selection Procedures
2. Publicity
3. Usage Bulletin Board
4. Field Trips
5. Physical Fitness Programs
6. Counseling Services

Rater Training activities were standardized so that a new rater (for example, trained in the Fall of 1973) received the same training as earlier trainees. The training activities were of 3 kinds:

1. Initial Training
2. Continuing Training
3. Recycling for falling Reliability

Reliability Checks were carried out periodically in both inter- and intra-rater reliability areas. These checks included:

1. Weekly Inter-rater Reliability
2. Monthly Transference Spot-checks
3. Longitudinal rate-rerate checks across rater crews

Each of the activities listed above are described more fully below.

Commitment Building Activities

Commitment building activities were initiated in January, 1972, because transference checks (described below) during the Fall of 1971 had revealed the fact that some of the raters were not transferring their skills to the actual research rating situation. Each of the specific procedures carried out in building rater commitment is explained below.

1. Selection Procedures

The students were interviewed and evaluated according to their energy level, posture, eye contact, expressed interest in the research program, and attitude toward learning. Students were sought who liked physical exercise, who had a moderate involvement in extra-curricular activities, and who maintained a 2.0 (or above) grade point average. It was most important that the student be able to do detailed repetitive work. The members of the rating corps were selected so as to always contain both males and females and at least a 25% black/white ratio.

Each applicant agreed to a 4-hour trial training period without pay. At the end of this time, those students who (1) liked the work and (2) had demonstrated that they were capable of doing it accurately were retained as trainee-raters. These trainees then completed the Initial Training Phase (described below). As an incentive, they were paid for initial training only upon successful completion of the course.

Trainees did not rate research tapes until they could maintain 90% ($p < .01$) inter-rater reliability. When a rater's production reached the desired level of 2½-3 tapes rated per hour with minimum error, the rater received a pay increase.

2. Publicity

Once the raters to be hired had been selected, press releases were sent to their hometown newspapers. Stories and pictures about the Consortium and its raters were placed in the student and local newspapers, and a paragraph and a picture of the current raters was used in the NLU Bulletin: General Information Issue, a recruitment booklet sent by the University to high school students all over the state. Copies were provied for each rater, as well.

3. Usage Bulletin Board

A bulletin board in the rater sign-in area was posted with items designed to emphasize the importance of their work. It was kept current with newspaper clippings of stories about the Consortium and with letters requesting research results and other information about the Consortium's work which had been received from all over the United States and several foreign countries. Additionally, whenever one of the raters received an honor or award, a newspaper clipping or other notice of his achievement was posted here.

4. Field Trips

From time to time, one or more raters were selected to accompany staff members on trips to school systems (other than the experimental system) which had requested presentations and/or training in the Consortium technology. During these trips, the raters received firsthand evidence of the importance of the Consortium's work as well as the experience of teaching others about what they were doing.

5. Physical Training

It soon became apparent that the more physically fit a rater was, the better his reliability. It is hypothesized that this is a result of a higher energy level enabling more concentrated attention to the task at hand. At any rate, we initiated a program of encouraging each rater to develop a physical fitness training program for himself. Each rater's progress in his program was charted on the bulletin board. To increase participation, a rater who earned 100 Aerobics points received a NCHE sweatshirt with the motto, "I rate!".

6. Counseling

Counseling was not a pre-planned part of the program but evolved as the students discovered the office climate of genuineness and positive regard. Raters would periodically seek out private conference time for their personal, financial, and school-related problems. The Consortium was where they could be themselves and find their own solution to problems.

The pace of work was very hectic at times, but the students always completed the necessary tasks with a sense of togetherness in accomplishment. The Consortium was "theirs."

Rater Training Activities

Rater training was standardized in three ways: 1) the training was conducted with standardized modules, 2) the modules were presented in a standardized sequence, 3) initial training practice in rating utilized standardized training tapes with master ratings. Before completing training, the rater trainees were expected to be able to reach .95 reliability with the master ratings.

Training activities were conducted in three phases: 1) initial training, 2) continuing training, 3) recycling. Each of these is explained more fully below.

1. Initial Training

During the initial training phase the rater trainees were presented with a series of standardized modules in a standardized sequence. The modules presented to the raters and the master ratings for the standardized training tape are included in this report. Copies of the training tapes have been submitted to the National Institute of Mental Health along with this report.

Following the presentation of each of the measurement modules, the raters practiced using the instruments singly and (as the training process continued) in combination with other instruments. The sequence of presentation of the modules and the associated rating practice periods is presented in the generalized training schedule shown in Table I, page 6. The training sequence remained the same from semester to semester; however, the time involved in the rating practice periods varied slightly with the abilities of the various rater crews.

2. Continuing Training

As rating teams reached the desired level of reliability, they were released from the initial training phase and began actual rating work. When all of the teams had completed the initial training phase, the continuing training phase began. In this phase, a Rater Meeting was held once a week for approximately an hour and a half.

These weekly meetings were mandatory for all raters. The meetings began with matters of business affecting the rating crews; such as, arranging rating schedules for teams, changes in rating procedures and/or team assignments, and the correction of errors in rating tabulation. This usually occupied only a few minutes of the meeting. The two major activities for the rater meetings were: (1) continuing training for rating accuracy, (2) the reliability checks (described below).

As a standard procedure, raters were instructed to set aside tapes they came across (while rating) which contained either unique examples or very good examples at the high or low extremes of the instruments. The rater supervisor then made selections of two or three segments from those tapes to be used in the Continuing Training for rater accuracy. At the rater meetings, these tapes were presented for rating.

The ratings were done individually by each rater. Each segment was rated on all seven instruments. Then the ratings for each segment were revealed by each rater. Whenever disagreement occured, the segment was replayed and discussed until a consensus was reached as to the proper rating for the tape. It was in these discussions that the raters internalized the scales and mastered the fine points of rating.

3. Recycling

If a rater fell below the desired reliability in the weekly reliability checks (described below), he was removed from his rating team and recycled through the training. In individual

TABLE 1: GENERALIZED RATER TRAINING SCHEDULE

1st day:	25 min.	- Introduction to Consortium
	60 min.	- Interchangeable Response Module
2nd day:	30 min.	- Practice on Interchangeable Response
	60 min.	- Flanders Interaction Analysis Module
	15 min.	- Practice with Flanders Interaction Analysis
3rd day:	30 min.	- Practice on Flanders'
	30 min.	- Introduction to Cognitive Functioning
	30 min.	- Interchangeable Responses
4th day:	120 min.	- Cognitive Functioning Categories Module
	15 min.	- Interchangeable Responses
5th day:	60 min.	- Flanders Practice
	60 min.	- Practice with Cognitive Categories
	15 min.	- Interchangeable Responses
6th day:	60 min.	- Cognitive Practice
	60 min.	- Energy Level Module (Introduction to Process Scales)
	15 min.	- Interchangeable Responses: Test of Accuracy and Communication
7th day:	30 min.	- Review Energy Level
	90 min.	- Meaning Process Scale (Module and Practice)
	15 min.	- Interchangeable Responses Test
8th day:	60 min.	- Genuineness Process Scale (Module and Practice)
	60 min.	- Success Promotion Scale (Module and Practice)
	30 min.	- Practice with Flanders and Cognitive Categories
9th day:	30 min.	- Practice with 3 Process Scales combined
	60 min.	- Respect Process Scale (Module and Practice)
	60 min.	- Student Involvement Process Scale (Module & Practice)
10th day:	60 min.	- Practice with all 5 Process Scales
	30 min.	- Practice with Flanders and Cognitive
	30 min.	- Practice with all 7 instruments
11th day:	30 min.	- Practice with all 7 instruments
	90 min.	- Assignment in Pairs. Pairs practice with all 7 instruments.
12th day:	30 min.	- Pair practice with all 7 instruments
	60 min.	- Reliability Check.
13th day:	60 min.	- Pair practice with all 7 instruments
	60 min.	- Reliability Check. Assignment to Teams.
14th day:	60 min.	- Team practice with all 7 instruments
	60 min.	- Reliability Check.

Total Training Time: 27 hours, 10 minutes

sessions with the rater supervisor, the module(s) for the particular instrument(s) in which the rater's reliability had slipped were re-presented. In addition, the rater was assigned additional practice rating with a Senior Rater. A Senior Rater was a rater who had been with the Consortium for more than one continuous semester and who had maintained high rater reliability throughout his period of employment.

In the practice rating, selected tapes were rated by both the Senior Rater and the rater receiving recycling. At the end of each segment, both ratings were compared. Wherever there was a discrepancy, the Senior Rater explained his ratings. This was continued using different tapes until the desired level of agreement between the two ratings was reached.

At this point in time, the rater receiving recycling then rerated the master training tape for his area(s) of weakness. If he received .95 reliability with the master ratings, he was returned to the rating team; otherwise training would be continued. During the life of the project, no situation arose in which a second cycle of retraining was necessary.

Reliability Checks

Three kinds of reliability checks were conducted. Inter-rater reliability was checked at each weekly rater meeting. In order to make sure that the rater teams were transferring their reliability to the actual research rating when working at the rating stations, spot checks of the rating teams were carried out once a month by Senior Raters. Beginning with the second year, inter-crew longitudinal reliability checks were conducted once a semester.

1. Weekly Inter-rater Reliability Checks

The weekly inter-rater reliability checks were handled in the weekly rater meetings. Two of the standardized training segments were presented for ratings. In order to ensure that reliability was not an effect of remembered ratings on the standardized tapes (even though each segment was used only twice in 25 weeks), a third tape segment was pre-selected and standardized by the rater supervisor for each meeting. "Master" ratings for this third segment were established by a consensus rating of the rater supervisor and three of the Senior Raters.

Manual rating sheets rather than the computer rating sheets were used in this check. The manual rating sheets included places for each recorded response and spaces for category tabulation.

The raters were divided into two groups. On the first segment one half rated Flanders while the other half rated Cognitive. All rated all of the process scales. On the second segment, the assignments to Flanders and Cognitive rating were reversed.

Each rater rated individually. At the end of the segment, each rater tabulated his Flanders and/or Cognitive ratings by category to obtain totals for each category.

The rating sheets were collected by the rater supervisor for use in checking inter-rater reliability. Additionally, results of the ratings were charted and presented to the raters at the next meeting. This gave a quick feedback to the raters on their individual agreement with the others. A sample chart is shown on page 9.

The cross-hatched area of the chart represents the maximum extent of .90 reliability. If a rater was outside this range, he was below standard. (See Rater #15 in illustration on p. 9)

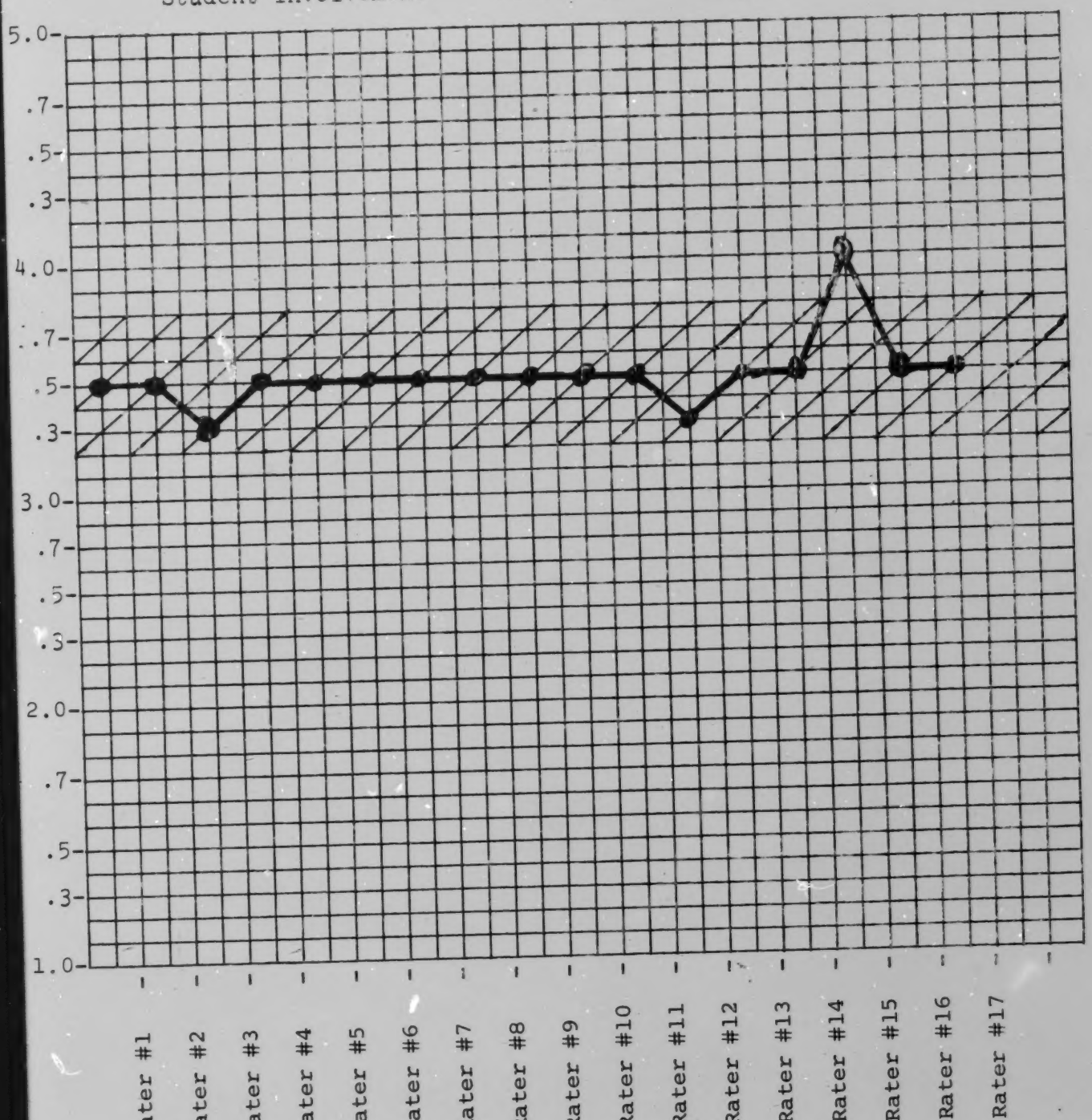
The allowable range of agreement (at $r = .90$) for the process scales was a difference of not more than $\pm .3$ from the master ratings. For the totals of the Flanders and Cognitive Categories (except those noted below), the raters were expected to agree with the master codings to a difference of no more than ± 4 tallies. For some of the Flanders and Cognitive categories which occur relatively infrequently but which were believed to be very important in teacher-pupil interaction, the raters were expected to identify and record every occurrence of that category. These categories were Flander's Categories 1, 2, and 3 and Cognitive Categories 3, 4, 7, and 8.

2. Monthly Spot Checks of Transference

The purpose of this spot check was to verify that the rater teams transferred their rating skills from weekly reliability sessions to actual rating time. The procedure was simply to rerate samples from the tapes rated each month.

Two Senior Raters selected at random a tape rated by each team during the preceeding month. At the original rating of the tape, the raters recorded the footage number for each segment which they rated. In rerating the tape, the Senior Raters were therefore able to rate the same segments of the tape as had been rated originally.

Student Involvement #11206-12 1-29-74



For this check, the Senior Raters used a special score sheet on which space was provided for rerating of the tape as well as for the original rating. After rerating the tape selected and doing the category tabulation for Flanders and Cognitive, the Senior Raters pulled the original ratings from the file and recorded them on the check sheet.

The comparison of the rerate and the original rating was the basis for the check. These checks were conducted throughout the duration of the project. However, after the initiation of Commitment Building Activities in January, 1972, no instances were found in which the rating skills had not been transferred from the reliability meetings to the actual research rating situation.

3. Longitudinal Inter-Crew Reliability

Because of the need to be able to compare teacher ratings across three years, the most important check carried out was the longitudinal rate-rerate across rater crews. The purpose of the weekly reliability and the monthly spot checks was to ensure that when the longitudinal rate-rerate checks were made, they would be within the desired level of reliability. In conducting the inter-crew reliability check each semester, the tapes from one month of the year before, which had been rated by the rater crew of the preceeding year, were selected and re-rated by the current rating crew. The tapes were assigned at random to the current rating teams. As the ultimate rate-rerate check, the rating crew of the Spring, 1974, rerated tapes from Fall of 1971.

The Pearson's Correlation Coefficients for this final longitudinal rate-rerate across crews are displayed in Table 2 shown on page 11.

The coefficients for the longitudinal rate-rerate reliability across three years revealed a higher variability in the reliability of the instruments than had been exhibited in the weekly inter-rater reliability checks. The longitudinal coefficients ranged from .898 to .963 (See Table 2), with category codings for Flanders Interaction Analysis proving the most reliable across time. Among the process scales, the Student Involvement scale had the highest coefficient while the Respect scale proved the least reliable. However, all coefficients were significant at $p. < .01$.

In the following section of this report, the rater training modules and the materials which accompany each module are presented. The master ratings for the standardized training tapes are located in Appendix B.

Table 2: Pearson's Correlation Coefficients for Longitudinal Rate-Rerate Reliability Across Rating Crews from Fall of 1971 to Spring of 1974

Instrument		r	sig.
Flanders' Interaction Analysis, Category Totals		.963	$p < .01$
Cognitive Functioning Categories, Category Totals		.941	$p < .01$
Process Scales	Meaning	.914	$p < .01$
	Genuineness	.906	$p < .01$
	Success Promotion	.905	$p < .01$
	Respect	.898	$p < .01$
	Student Involvement	.921	$p < .01$
	N = 503 tapes re-rated		

INTERCHANGEABLE RESPONSES: DISCRIMINATION AND COMMUNICATION OF FEELINGS

The National Consortium for Humanizing Education received special permission from Dr. R. R. Carkhuff to utilize in rater training the module on Interchangeable Responses which he had developed from the material in his book The Art of Helping. The module is not presented here as Dr. Carkhuff retains copyright to the material. Communications about this module should be addressed to Dr. R. R. Carkhuff at Human Resource Development Press, P. O. Box 628, Amherst, MA - 01002.

FLANDERS' INTERACTION ANALYSIS

OBJECTIVES

1) To establish a trust relationship between the instructor and each trainee so that the trainee will feel secure enough to examine teaching behavior.

2) To present Flanders' Interaction Analysis so that each trainee comes to see it as one tool with which he can examine any teaching behavior.

3) To present Flanders' Interaction Analysis so that each trainee can identify the category and/or categories of a given teacher-student interchange.

4) To develop proficiency in the use of Flanders' scale so that each trainee can identify the category of interaction at regular intervals.

5) To refine proficiency so that each trainee can code any given segment of tape of verbal exchange with Flanders' Interaction Analysis at regular intervals of 3 seconds. He will be able to do this with a difference from the trainer's coding of no more than 4 in the total number of tallies in each category, and the trainee will identify and record every occurrence of Categories 1, 2, and 3.

MATERIALS

1) Flanders' Categories for Interaction Analysis (copies for each trainee)
2) Flanders' and Cognitive Training Tape (Appendix C)
3) Master ratings for training tape (Appendix B)
4) Metronome
5) Cassette recorder
6) Chalkboard and chalk
7) Paper
8) Pencils
9) Transparencies FT-1, FT-2, FT-3
10) Overhead projector
11) Illustration of Categories #1, #2, and #3
12) Appendix A

PROCEDURES

1) As introduction, ask questions about the interactions and activities that occur in the classroom. Questioning could be phrased in this way: "What goes on in a classroom?" (List each activity on the board as it is named). "Could we say upon examination that most of the activities are verbal?--that verbally we indicate each activity that is going on?" "What are the different types of verbal interchange?" List all types on board. Accept all answers.

2) This discussion is followed with an explanation by the instructor of Flanders' Categories. Use the transparencies at this point.* General points to be made:

   a) Categories are descriptive, <u>not</u> evaluative.

   b) 97% of everything that goes on in the classroom can be determined by verbal behavior, thus Flanders' category is effective for use in research.

   Apply Flanders' category numbers to different types of verbal behavior listed on board. If some need to be broken down, break them down through questioning a sample sequence, such as, discussion brought on by asking a question, which initiated response, which in turn motivated someone else to respond. Three categories (4, 8, 9) are thus brought forth through closer examination.

3) See transparency FT-1: Function of Flanders'.

   This transparency shows the function of the Flanders' categories. It describes - who is talking, type of talking going on (refer back to listing of types on board), and what follows what in the type of talk (question followed by answer, followed by praise, etc.)

4) Examine individual copies of Flanders' category with transparency of Flanders' Categories FT-2.

   Point out these major divisions of Flanders' Categories:

   a) The category is broken down as to who is talking--teacher, student, or no identifiable person (silence or chaos).

---

*Masters for the transparencies used with the module follow this module.

b) Teacher talk is broken down as to whether the teacher is using indirect teaching methods (accepts feelings, praises, uses student ideas, asks questions) or whether she is using direct teaching methods (lectures, gives directions, criticizes).

5) Read each category aloud. Have a trainee take each category, read, explain, and give examples. In the discussion these points should be made:

a) There is a distinction between categories 1 and 3; category 1 is accepting student feelings; category 3 is accepting or using student ideas.

b) There is a distinction between categories 8 and 9--category 8 is a teacher elicited response--called for directly by the teacher; category 9 is a student initiated response--the student wants to respond or to add something to the class.

c) Emphasize that no category is "bad". The good teacher uses whatever category is appropriate to the need of the situation and to the immediate instructional goals. Flexibility is important--the ability to hit whatever category is needed by the class.

d) Distinguish verbal tics from genuine praise as coded in category 2. A verbal tic is a "praise" type word used so often it becomes meaningless such as "good", "o.k.", etc.

6) Divide into small groups and do Illustration of Categories #1.* Return to the large group and discuss. Each group should be able to give reasons for choosing the category that they did. No one is wrong. The instructor simply gives his way of "hearing" the different responses on the worksheet. Explain that the basic purpose is for the group to "hear" it alike.

7) Individually do Illustration of Categories #2.* Discuss as a group. Same rules apply as in procedure 6.

8) Provide a brief success experience with the categories. Have the trainees relate their classroom experience to Flanders' categories by translating category numbers into familiar patterns of interaction. Use the transparency of Flanders' Patterns, FT-3. List the different patterns and ask the trainees to tell what is going on.

*Appendix A

PATTERNS

a	b	c	d	e	f	g	h	i
4	4	4	5	5	5	5	4	4
8	10	10	5	5	5	5	8	8
4	4	8	4	6	6	5	2	2
8	8	9	4	8	10	9	9	2
4	4	9	8	8	7	5	9	3

Points to be made for each pattern:

a) Question and answer. More likely to be a drill than a discussion.
b) Teacher asked question: Student unable to answer. Teacher rephrased question. Student answers.
c) Teacher asked question: pause for thinking, students answered questions. Presence of 9 indicates the question stimulated thinking. The 10 can be indicative of thinking time or of confusion.
d) Lecture, question, answer. Question probably called for recall of item in lecture.
e) Lecture, directions, student compliance with directions.
f) Lecture, directions, students failed to comply, teacher criticizes students' failure.
g) Lecture interrupted by student question. Reply to question.
h) Question, answer, praise, unsolicited participation.
i) Question, answer, unsolicited response, praise, clarifying and building on idea presented.

9) Divide into small groups and work out original samples of various patterns to be presented and coded by whole group. Patterns may be assigned and/or the group may choose the pattern they wish to demonstrate. The whole group will code the interaction at every exchange or at regular measured intervals of 5, 4, or 3 seconds.

10) At this time it should be brought out that inside of one interval several exchanges may occur, or even one person can use several categories inside an interval. The coder should code the category which is most significant for the interval. This could be the category which lasts the longest or the category which does not occur often, such as 2 or 1. The important overall view is the pattern the numbers form which should be representative of the verbal behavior.

11) Listen to one segment of Flanders' training tape. Turn the metronome on a slow speed and code the segment once every beat. Write code numbers in sequence on a sheet of paper. Discuss and compare codings by counting categories, placement, and patterns. This should be repeated on various segments until the desired proficiency is attained.

12) If necessary in order to reach reliability standards, the following additional training can be conducted:

    a) Work on "Illustrations of Categories #3". Repeat procedure 7.

    b) Repeat procedure 11 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert attentive physical posture and participates in the activities of the group.

For objective 2:
Each trainee identifies patterns in a verbal classroom interaction.

For objective 3:
Each trainee codes the worksheets on an 85% accuracy with that of the instructor.

For objective 4:
Each trainee codes on a slow speed such as a 5 second interval. This coding will compare with that of the instructor so that there is no more difference than 4 in each category total, and for each category that is more than 0 but less than 4, he codes at least 1.

For objective 5:
Each trainee codes any given segment of tape of verbal exchange on a three second interval on Flanders'. He does this with no more of a difference from the trainer's coding than 4 in the total number coded in each category, except that the trainee will identify and record every occurrence of categories 1, 2, and 3.

FLANDERS'
CATEGORIES FOR INTERACTION ANALYSIS*

Teacher Talk	Indirect Influence	1. Accepts Feelings: Accepts and clarifies the feeling tone of the students in a non-threatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included. 2. Praises or Encourages: Praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying, "um hm?" or "go on" are included. 3. Accepts or Uses Ideas of Student: Clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5. 4. Asks Questions: Asking a question about content or procedure with the intent that a student answer.
	Direct Influence	5. Lecturing: Giving facts or opinions about content or procedure; expressing his own ideas, asking rhetorical questions. 6. Giving Directions: Directions, commands, or orders to which a student is expected to comply. 7. Criticizing or Justifying Authority: Statements intended to change student behavior from non-acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
Student Talk		8. Student Talk: Response; talk by students in response to teacher. Teacher initiates the contact or solicits student statement. 9. Student Talk: Initiation; talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10. Silence or Confusion: Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

*Minnesota, 1959

FT-1: Function of FLANDERS

1. DESCRIPTIVE (non - evaluative)

   (a.) WHO IS TALKING?

   (b.) TYPE OF TALK

   (c.) SEQUENCE OF TALK (what follows what)

FT-2: Flanders Analysis

Teacher Talk	Indirect	1. accepts student feelings 2. praises 3. uses student ideas 4. asks questions
	Direct	5. lectures 6. gives directions 7. criticizes
Student Talk		8. Student responds 9. Student initiates
		10. silence or confusion

FT-3: FLANDERS' PATTERNS

A	B	C	D	E	F	G	H	I
4	4	4	5	5	5	5	4	4
8	10	10	5	5	5	5	8	8
4	4	8	4	6	6	5	2	9
8	8	9	4	8	10	9	9	2
4	4	9	8	8	7	5	9	3

COGNITIVE FUNCTIONING CATEGORIES

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in discussion and contributes his own ideas.

2) To present the Cognitive Categories so that each trainee comes to see it as a tool with which he can measure the amount of thinking occurring in a classroom.

3) To present the Cognitive Categories so that each trainee can distinguish the memory categories from the thinking categories of a given teacher-student interchange.

4) To develop proficiency in the use of the instrument so that each trainee can identify the appropriate Cognitive category at regular intervals.

5) To refine the proficiency so that each trainee can code any given segment of tape of verbal interchange with the Cognitive Categories at regular intervals of 3 seconds. He will be able to do this with a difference from the trainer's coding of no more than 4 in the total number of tallies coded in each category, and the trainee will identify and record every occurrence of categories 3, 4, and 8.

MATERIALS

1) Cognitive Categories (copies for each trainee)
2) Flanders' and Cognitive training tape (Appendix C)
3) Master ratings for training tape (Appendix B)
4) Metronome
5) Cassette recorder
6) Chalkboard and chalk
7) Paper
8) Pencils
9) Transparencies CT-1, CT-2, CT-3
10) Overhead Projector
11) Illustration of Categories #1, #2 and #3 (Appendix A)

PROCEDURES

1) Show transparency CT-1 of COGNITIVE MAJOR CONCEPTS. Read it aloud, discuss, and call for questions.

Major Concepts:

a) Cognitive means knowledge...this scale is concerned with the knowledge or learning that is taking place.

b) This instrument focuses strictly on the intellectual sphere of activity. We are interested only in the mental processes occurring in the classroom. All emotional things are put in one category--9.

c) Learning takes place in many ways. Primary among these are two processes we call MEMORY and THINKING.

d) MEMORY is remembering. That is, you learned it once before and now you are asked to conjur it up again. Relating or telling experiences falls into this category. In general, when the process covers familiar territory, it is put into the memory category.

Examples: Lecturing, reading, singing, talking from experience (show & tell), proving they have studied or listened, questions such as: What?, When?, Where?

e) THINKING is taking place when you:
1) put separate bits of knowledge together and come up with something new that you didn't know before,
2) apply knowledge from one place to another.
Example: Solving a problem in math. The student knows the mathematical rule but must plug in new numbers and come up with the solution.

f) Thinking usually involves creativity and imagination. In general, when the process covers new material for the person doing it, it is called thinking. It is an expansion of the existing knowledge base. See Transparency CT-2 BREAKDOWN OF MENTAL PROCESS.

g) This is the breakdown of mental processes for the Cognitive Categories:

MEMORY

1. Receives information
2. Repeats it back - checks comprehension

THINKING

3. Puts two received informations together.
4. Creates something new for the individual. Solves a problem correctly.

h) Research has shown that 85% of all classroom activity occurs at the memory level. Of the 15% that occurs at the thinking level, the teacher accounts for 10%. That means students generally spend only 5% of their class time in thinking activities.

2) Call for examples that would fit into the general categories of memory and thinking. (Examples: reporting, discussing, solving math problems). List the examples according to categories - memory or thinking.

3) Have trainees make up examples of thinking questions and memory questions. Let the group discuss the questions and decide in which category (memory or thinking) the questions fit. The group must come to a consensus coding for each category. Remember, however, that this is a perceptual exercise. The group must "hear" each coding alike and be able to give reasons to support the category coded. The perceptions or "hearings" different from the consensus are not wrong, just different. Everyone needs to hear alike in order to code reliably. Always refer back to the major concepts when in doubt.

4) Go over the codes together, use individual copies as well as transparency CT-3 COGNITIVE CODES. These points should be covered and discussed:

a) The scale is divided into teacher talk, student talk, and affective or emotional behavior.

b) Under teacher talk the categories are divided into memory and thinking. Categories 1 and 2 are memory; categories 3 and 4 are thinking.

c) Under student talk the categories are divided into memory and thinking. Categories 5 and 6 are memory; categories 7 and 8 are thinking.

d) Category 9 is all emotional behavior - those things that would be categories 1, 2, 7, and some 6's (such as "shut the door") on Flanders' Interaction Analysis.

e) Category 10 is chaos, silence, or confusion.

5) In small groups do Illustration of Categories #1* on the Cognitive codes. Bring groups together to discuss codings. Each group must be able to explain the reasons behind their choices of categories for each interchange. The whole group must come to a consensus coding approximating master codings. There are no wrong perceptions, just different. Everyone must "hear" alike as coders. Simply explain why you, as an instructor, "heard" it the way you did.

6) Have each individual do Illustration of Categories #2.* Discuss codings as a group. Each individual must be able to give the reasons for his choices. Same rules apply as for procedure 5. (This step may be omitted if trainer feels trainees have fully grasped concepts).

7) Discuss the different patterns which generally occur. These points should be covered:

   a) The major patterns are 2-5 (teacher-student on memory level), and 4-7 (teacher-student on thinking level).

   b) Be careful of coding patterns of 2-7, 4-5 which occur repeatedly. If this occurs as a repeated pattern, there may be something wrong with the codings. The students seldom operate on a different intellectual plane from the teacher. Re-code the segment (chances are the codings are wrong).

   c) As in Flanders', look for the pattern and the most significant category occurring in an interval where there is more than one type of exchange.

8) Listen to a segment of the Cognitive training tape.** Discuss it generally as to major categories appearing in the segment. Code a segment on paper at a slow speed (5, 4, or 3 seconds) with a metronome or the instructor beating time. Repeat coding with various segments until trainees achieve the level of proficiency desired.

9) If necessary in order to reach reliability standards, the following additional training can be conducted:

   a) Work Illustration of Categories #3.* Repeat procedure 6.

   b) Repeat procedure 8 with other training tapes.**

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*Appendix A
**Appendix B

OUTCOME INDICES

For objective 1:

Each individual is physically attentive, alert, and participates in the small group work.

For objective 2 and 3:

Each trainee codes the worksheets of a teacher-student interchange with 85% accuracy.

For objective 4:

Each trainee codes on a slow speed such as a 5 second interval. These codings will compare with those of the instructor so that there is no more difference than 4 in each category total, and for each category that is totaled more than 0 but less than 4, each trainee will score at least 1.

For objective 5:

Each trainee codes any given segment of tape of verbal exchange on a three second interval on the Cognitive scale. He does this with no more of a difference than 4 from the trainer's codings in the number tallied in each category, except that the trainee will identify and record every occurrence of categories 3, 4, and 8.

AN INSTRUMENT FOR THE ASSESSMENT OF
COGNITIVE BEHAVIOR IN THE CLASSROOM

PERSON		CATEGORY OF BEHAVIOR
TEACHER	Memory	1. Demonstrates knowledge of a fact (Memory or recall and recognition). 2. Solicits student to demonstrate knowledge of a fact.
	Thinking	3. Uses a fact (thinking) Examples: (a) to solve a problem to propose an attack on a problem. (b) to analyze a situation 4. Solicits student to use a fact (thinking) Examples: (a) to solve a problem (b) to analyze a situation
STUDENT	Memory	5. Demonstrates knowledge of a fact (memory or recall) 6. Solicits someone else to demonstrate knowledge of a fact
	Thinking	7. Uses a fact (thinking) Examples: (a) to solve a problem (b) to analyze a situation 8. Solicits someone else to use a fact Examples: (a) to solve a problem (b) to analyze a situation
		9. Non-cognitive behavior (Affective behavior) 10. Silence or confusion

CT-1: Cognitive Major Concepts

(a) Cognitive means knowledge

(b) Scale focuses on the intellectual activity--the mental processes. All emotional things--category 9.

(c) Learning processes categorized--Memory and Thinking.

(d) Memory and remembering. Relating or telling experiences. Covers familiar territory.

(e) Thinking--involves creativity, imagination; covers new material; an expansion of existing knowledge base. Thinking: 1) combines separate bits of knowledge into something new, or 2) applies knowledge from one place to another.

CT-2: Breakdown of Mental Process

Memory

1. Receives information
2. Repeats it back--checks comprehension

Thinking

3. Puts two received informations together
4. Creates something new for him. Solves a problem correctly

CT-3: Cognitive Categories

TEACHER TALK	MEMORY	1. Demonstrates knowledge of a fact. 2. Solicits student to demonstrate knowledge of a fact.
	THINKING	3. Uses a fact (analyze or solve). 4. Solicits student to use a fact (analyze or solve).
STUDENT TALK	MEMORY	5. Demonstrates knowledge of a fact. 6. Solicits someone else to demonstrate knowledge of a fact.
	THINKING	7. Uses a fact (analyze or solve). 8. Solicits someone else to use a fact. (analyze or solve).
		9. Non-cognitive behavior-emotions (Affective behavior) 10. Silence or confusion

INTRODUCTION TO PROCESS SCALES AND MEASURING ENERGY LEVEL

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in discussion and contributes his own ideas.

2) To present the shared basic factors of the affective scales so that each trainee can use them as tools to measure the affective functioning of teachers (and the resultant effect on the students), as well as tools to measure all human interaction.

3) To define energy level according to physical cues so that each trainee can discern high and low energy level by observing physical signs.

4) To equate the physical energy cues with vocal energy cues so that each trainee can identify energy as being either high or low by listening to any given teacher's voice.

MATERIALS

1) Training Module
2) Meaning training tape (Appendix C)
3) Master ratings of training tapes (Appendix B)
4) Cassette recorder
5) Transparency of energy level symbols
6) Overhead projector
7) Paper
8) Pencils
9) Chalkboard and chalk

PROCEDURES

1) The 5 process scales* for measuring a teacher's affective functioning all have several basic factors in common. These are:

---

*A training module for each scale (Meaning, Genuineness, Success Promotion, Respect, and Student Involvement) follows this module.

a) All five scales measure the emotional content of the classroom. These are intangibles which are reflected vocally.

b) These scales are often called the affective scales. They measure the effect that the teacher has on her students.

c) The effect is always "<u>for better or for worse</u>."

d) One of the first steps in using the scales is deciding if the teacher is helping or hurting her students emotionally and intellectually.

e) A question you should ask yourself is: "Would I want to be in this classroom?"

f) Each process scale has 5 levels for measuring. Symbols* can be used to make first discriminations.

1) ±Indicates that the teacher is interchangeable, minimally effective. She is not hurting her students, may even be helping them to learn. On a 5 point scale, this (±) would at least be a 3.0.

2) - Indicates that the teacher is hurting her students, making them dislike what they are doing. The rating for this (-) is 2.0 or lower.

3) Levels on the scales <u>approximate</u> these energy levels:

SEE TRANSPARENCY -- Energy/Level Symbols

-- 1.0 Crippling
- 2.0 Hurting
± 3.0 Minimally effective
+ 4.0 Adding significantly
++ 5.0 Adding, encouraging, exploring

2) In the five process scales, always decide the energy level to determine the <u>range</u> of the scale rating.

a) Energy level is the key to determining if a teacher is helping or hurting.

Display selected visual aids of persons in interaction situations. (These aids could be slides, transparencies or even trainer and/or trainees modeling high and low energy).

*Energy level notation adopted from R. R. Carkhuff, <u>The Art of Helping</u>. Amherst, MA: Human Resource Development Press, 1972.

b) A working definition to use when measuring energy level is: "Energy is the capacity to act." Ask the trainees to identify the people in the situation as either high or low energy by just looking at them. Cues to look for are (write them on the board as they are discussed): posture, sitting, and standing--are the persons settled or ready to move; look at the line of balance in the posture--is the body line straight, or slumped and leaning; look at the expressions on people's faces--either open or closed: look for evidence of confidence, defined as having reserves of energy held back and waiting to be used.

c) Equate the physical cues with verbal ones. Call on the trainees to translate them. Write the examples on the board as they are discussed. Energy may be detected by: quickness of response (physical: line of balance), appropriate rate of speaking (physical: line of balance), balance in volume--neither too loud nor too soft (physical: line of balance), reserves of energy reflected by volume and pitch (physical: expressions on faces - alert, open, confidence). To be a high energy level person, the teacher must maintain all of these characteristics at the same time. The teacher must maintain her balance.

d) Listen to taped examples of energy level and identify energy level as high or low. Use the Master training tape and the Master ratings. Translate the Master ratings into energy symbols (±). Do not reveal or discuss the Master ratings at this time.

e) Further discernments of energy level--teacher must have all characteristics of high energy level to be rated as high. Rate high energy level as ± (at least 3.0) and low as - (2.0 or lower). Practice deciding energy level and using symbols for all five levels.

f) Because energy level is a basic ingredient in each process scale, ratings between the 4 process scales relating to the teacher (Meaning, Genuineness, Success Promotion, Respect) probably will not vary more than .7.

g) Note: In a recent study by Dr. Tom Collingwood of Louisiana State University, it was shown that teachers who performed the best on physical fitness tests were rated higher according to these scales. Energy level does have a direct bearing on a teacher's functioning in the classroom.

h) Repeat steps d & e until 90% accuracy is obtained.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the discussions.

For objective 2:
Each trainee listens to an audio tape and rates the affective functioning of the teacher as either helping or hurting the students.

For objective 3 and 4:
Each trainee identifies energy level as being either high (±) or low (-) for any given segment of a teacher's vocal behavior with 90% accuracy.

ENERGY/LEVEL SYMBOLS

-- 1.0 Crippling

- 2.0 Hurting

± 3.0 Minimally Effective

+ 4.0 Adding Significantly

++ 5.0 Adding, Encouraging, Exploring

A SCALE FOR THE MEASUREMENT OF A TEACHER'S UNDERSTANDING OF THE MEANING OF CLASSROOM EXPERIENCES FOR HER STUDENTS

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in discussion and contributes his own ideas.

2) To present the Meaning scale so that each trainee is able to use it as a tool to measure a teacher's empathy with her students as well as a tool to measure empathy in all human interactions.

3) To present the 5-level measure of the Meaning scale incorporating energy level so that each trainee can distinguish between broad levels with 85% accuracy.

4) To refine each trainee's discernment so that he can identify not only 5 levels but three sub-levels (.3, .5, .7) within each level to ± .3 agreement with the master ratings.

MATERIALS

1) Understanding of Meaning scale (copies for each participant)
2) Meaning training tape (Appendix C)
3) Master ratings of training tape (Appendix B)
4) Cassette recorder
5) Chalkboard and chalk
6) Pencils
7) Paper
8) Transparency
9) Overhead projector

PROCEDURES

1) Review energy level identification by playing a sample tape segment and deciding if energy is high (±) or low (-).

2) Move into a didactic presentation of A SCALE FOR THE MEASUREMENT OF A TEACHER'S UNDERSTANDING OF THE MEANING OF CLASSROOM EXPERIENCES FOR HER STUDENTS. Read the scale together, a

trainee taking each level. Utilize individual copies of the scale. Discussion should follow. These are the important points to be covered:

a) The title indicates the basic purpose of the scale.

b) Energy level is applicable to the Meaning scale in these ways:

1. The teacher uses a meaningful variation of tone.

2. The teacher has reserves of energy--energy that she calls on as indicated by:

   a) well modulated volume; not screaming, shouting, whispering, etc.
   b) well modulated pitch. (Be aware that pitch is sometimes the result of the teacher's physical being. Pitch should be marked down only if it is in the extreme--squeaky, raspy, whining, etc.)

3. The teacher's rate of speaking is appropriate to the lesson material--not monotonous, not falling into a sing-songy pattern.

4. The teacher's quickness of responses-the spontaneity she exhibits - is appropriate.

c) Energy level is a good clue to how the teacher will be rated. To be a level 3, the teacher must have high energy--must exhibit all of the characteristics listed above.

d) Praise is significant on this scale. (Flanders' category 2, 9 on Cognitive). Some use of praise is necessary for the teacher to be a level 3. Praise does not always have to be "Good". It may be other feeling words or tone of voice. The best praise is more than just a "Good" response. It is specific and appropriate to the situation. A level 3 on this scale responds at least with a "Good".

e) For a teacher to be above a level 3 on this scale, she must approach interchangeable responses with her student, using some feeling words, and much patience. To be a level 4 or above, she must make interchangeable responses.

f) Use the transparency, Meaning Continua, to put scale into a capsule for trainees to remember.

3) Listen to two extremes of Meaning on the training tape. Have the trainees rate energy level. Translate the energy symbols into numbers: -- 1, - 2, ± 3, + 4, ++ 5. Explain that this is the general level rating on the scale. Take into consideration the teacher qualities previously listed: praise, patience, feeling words, and interchangeable responses. Have trainees read the scale and adjust their level ratings to include these qualities. The level ratings should correspond to the description of the teacher's verbal behavior. Reveal only the broad levels of the master ratings (1.0, 2.0, 3.0, 4.0, 5.0) to the trainees.

4) Listen to various segments on the training tape and identify levels. Discuss when necessary. There is no "wrong" answer. When disagreements occur, call on various trainees to explain why they heard it the way they did. Explain the master ratings and that the purpose is for all to be able to hear it this way. Refer discrepancies to Meaning Continua.

*5) Explain sub-levels. Teachers may not fit levels exactly according to the descriptions in the scale--they probably won't. Therefore, there are sub-level ratings. If the teacher is a little better than the description of the level, she is that level plus .3. If she is about half-way in between two levels, she is the lower level plus .5. If she is not quite the upper level, she is the lower level plus .7. Listen to taped examples and discern: (1) energy level, (2) broad level on Meaning scale, (3) scale sub-level. Discuss inter-relationships.

6) If necessary in order to reach reliability standards, repeat procedure 5 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the training session.

For objective 2 and 3:
Each trainee distinguishes between broad levels to 85% accuracy with master ratings.

*Step 5 should not be undertaken until trainees can agree on broad level ratings.

RELIABILITY INDICE

For objective 4:

Each trainee identifies the levels and sub-levels to ± .3 agreement with master ratings for any given tape segment.

A SCALE FOR THE MEASUREMENT OF A TEACHER'S UNDERSTANDING OF THE MEANING OF CLASSROOM EXPERIENCES FOR HER STUDENTS

Level 1. Neither the tone quality nor the words of the teacher's verbal communication convey any feelings, and/or she responds inaccurately to the meaning of the students' experiences.
Examples:
(1) The tone of the teacher's voice is flat or monotonous.
(2) The teacher says, "You enjoyed that" after a student's performance indicates obvious dislike for the activity.

Level 2. The tone quality of the teacher's verbal communication conveys slight evidence of feelings which are only somewhat appropriate to her student's experience. She uses no words to explicate her feelings.
Examples:
(1) The teacher's voice is very subdued and controlled.
(2) The teacher says, "Let's hold it down" after a student expresses joy with the activity.

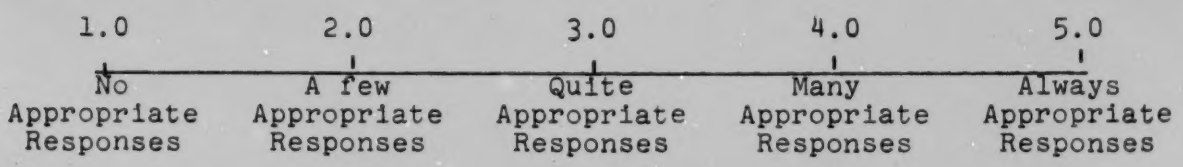
Level 3. The tone quality of the teacher's verbal communication conveys feelings which are quite appropriate to her students' experiences. She is "with" her students. However, she uses no words to explicate her feelings.
Examples:
(1) The teacher's voice matches that of her students. She neither adds nor detracts from the meaning of their experience.
(2) The teacher says, "Good" after a student demonstrates appropriate joy with the activity.

Level 4. The tone quality of the teacher's verbal communication conveys feelings which are appropriate to her students' experiences. Additionally, she uses mild words to describe the feelings.
Examples:
(1) The teacher adds slightly to the meaning of the students' experiences by appropriate words.
(2) The teacher says, "Good, you seemed to really enjoy that!" After a student demonstrates appropriate joy with the activity.

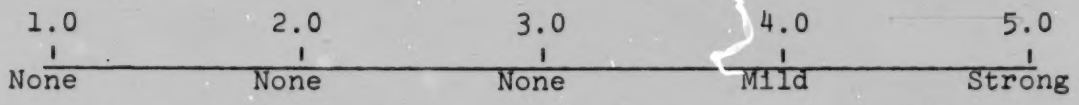
Level 5. The tone quality of the teacher's verbal communication conveys feelings which are appropriate to her students' experiences. Additionally, she uses "strong" words to describe her feelings.
Examples:
(1) The teacher adds a great deal to the meaning of the students' experiences by appropriate words.
(2) The teacher says, "Great I felt like you were going to dance you liked that so much!" after a student demonstrates appropriate joy with the activity.

MEANING CONTINUA

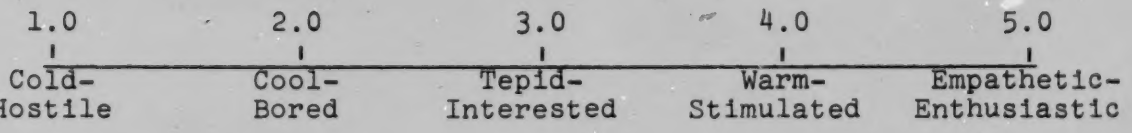
Responses



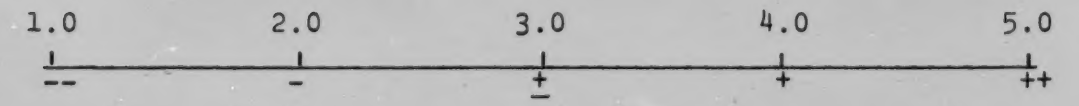
Feeling Words



Attitude



Energy Level



A SCALE FOR THE MEASUREMENT OF A TEACHER'S GENUINENESS IN HER CLASSROOM INTERACTION WITH STUDENTS

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in the discussion and contributes his own ideas.

2) To present the Genuineness scale so that each trainee is able to use it as a tool to measure a teacher's congruence with her students, as well as a tool to measure congruency in all human interactions.

3) To present the 5-level measure of Genuineness incorporating energy level so that each trainee can distinguish between broad levels with 85% accuracy.

4) To refine trainee's discernment so that each can identify not only 5 levels but three sub-levels (.3, .5, .7) within each level to $\pm$ .3 agreement with the master ratings.

MATERIALS

1) Genuineness scale (copies for each trainee)
2) Meaning training tape - (Appendix C)
3) Master ratings for training tape - (Appendix B)
4) Cassette recorder
5) Chalkboard and chalk
6) Pencils
7) Paper
8) Transparency
9) Overhead projector

PROCEDURES

1) Review energy level identification by playing a sample tape segment and deciding if teacher is high or low on energy.

2) Move into didactic presentation of A SCALE FOR THE MEASUREMENT OF A TEACHER'S GENUINENESS IN HER CLASSROOM INTERACTION WITH STUDENTS. Read the scale together, a trainee taking each level. Utilize individual copies of the scale. Follow with discussion and cover these points:

a) The teacher's energy level is very important to this scale in these ways:

1) There is a meaningful variation of tone.

2) There is a quickness of responses. This is spontaneity--the teacher addresses herself openly and fully to the behaviors in herself and her students as they arise.

b) Ask yourself--"Does the teacher sound as if she is portraying a role as a school teacher rather than being a real person on a one-to-one basis with her students?" If she does this, she is below a level 3.

c) Use the transparency of the Genuineness Continua and discuss the use of pronouns (as shown on the transparency) as a cue to genuineness and level ratings for role playing. Discuss the other factors shown on transparency and their inter-relationships.

3) Listen to two extremes of Genuineness from the training tape. Have the trainees rate energy level. Then, translate energy symbols into numbers: -- 1, - 2, ± 3, + 4, ++ 5. Explain that this is the general level rating on the scale. Take into consideration the qualities listed under procedure 2: spontaneity, openness, and role playing. Read the scale and have trainees make adjustments to include those qualities according to the description of the teacher under each level. Reveal and discuss the master ratings.

4) Listen to various segments on the training tape, identifying the levels. Discuss when necessary. There is no wrong answer. This is a perception exercise and each perceives things differently. Call on various trainees to explain why they heard it the way they did. Explain the master ratings and that the purpose is for all to be able to hear it, to perceive it, alike. Refer discrepancies to Genuineness Continua.

*5) Explain the scale sub-levels. Teachers may not fit levels exactly according to the descriptions in the scale. They probably won't. Therefore, there are sub-level ratings. If a teacher is a little better than the description of the level, she is that level plus .3. If she is about half way in between two levels, she is the lower level plus .5. If

*Step 5 should not be undertaken until trainees can agree on broad level ratings.

she is not quite the upper level, she is the lower level plus .7. Listen to tapes for examples and identify: (1) energy level, (2) level on scale, (3) scale sub-level.

6) If necessary for reliability standards, repeat procedure 5 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the training session.

For objective 2 & 3:
Each trainee distinguishes between broad levels to 85% accuracy with master ratings.

RELIABILITY INDICE

For objective 4:
Each trainee identifies levels and sub-levels to ± .3 agreement with master ratings for any given tape segment.

A SCALE FOR THE MEASUREMENT OF A TEACHER'S GENUINENESS IN HER CLASSROOM INTERACTION WITH STUDENTS

Level 1. All of the teacher's verbal communications are ritualistic. They seem to be mechanical or practiced.
Examples:
(1) The teacher sounds like a "school teacher." ("teacherish voice")
(2) The teacher slowly and/or mechanically says, "Turn to page 99 and begin reading silently."

Level 2. Most of the teacher's verbal communications are ritualistic, but a few are somewhat spontaneous.
Examples:
(1) The teacher sounds like a "school teacher" most of the time, but occasionally she sounds like she is having a "normal" conversation.
(2) The teacher rather slowly says, "Turn to page 99 and begin reading silently," but she gives evidence of some (though not much) vitality.

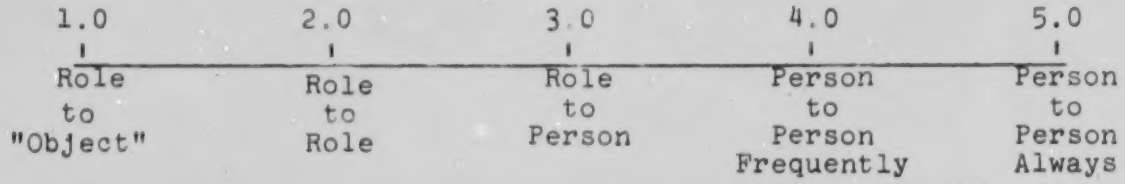
Level 3. The teacher's verbal communications are about equally distributed between ritualistic and spontaneous.
Examples:
(1) The teacher sounds like a "school teacher," about half the time, while for the other half she seems to be having a "normal conversation."
(2) The teacher says, "Let's turn to page 99 and begin reading," and she gives evidence of normal vitality. She is neither wildly enthusiastic nor dull.

Level 4. Most of the teacher's verbal communications are spontaneous, but a few are ritualistic.
Examples:
(1) The teacher only rarely sounds like a "school teacher." Most of the time she sounds as though she is engaging in "normal" conversation.
(2) The teacher says, "Let's turn to page 99, and would anyone like to read to us?"

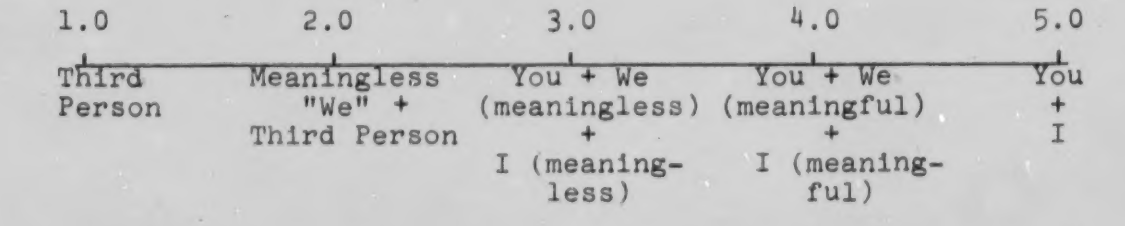
Level 5. All of the teacher's verbal communications are spontaneous. They are neither mechanical nor practiced.
Examples:
(1) The teacher always sounds like she is having "normal" conversation.
(2) The teacher says, "What do you want to read today? Does anyone know an exciting story?"

GENUINENESS CONTINUA

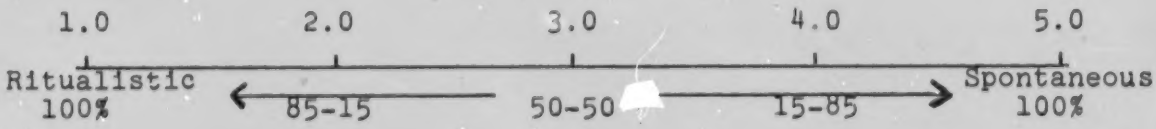
Role



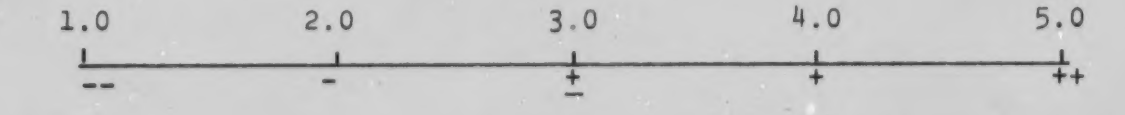
Use of Personal Pronouns



Communication



Energy Level



A SCALE FOR THE MEASUREMENT OF THE PROCESS OF SUCCESS PROMOTION

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in the discussions and contributes his own ideas.

2) To present the Success Promotion scale so that each trainee is able to use it as a means to measure a teacher's priorities in her classroom experience.

3) To present the 5 level measure of Success Promotion incorporating energy level so that each trainee can discriminate between broad levels with 85% accuracy.

4) To refine trainee's discernment so that each trainee can identify not only 5 levels but three sub-levels (.3, .5, .7) within each level to ± .3 agreement with master ratings.

MATERIALS

1) Success Promotion scale (copies for each participant)
2) Meaning training tape (Appendix C)
3) Master ratings of training tapes (Appendix B)
4) Cassette recorder
5) Chalkboard and chalk
6) Pencils
7) Paper
8) Transparency
9) Overhead projector

PROCEDURES

1) Use individual copies of A SCALE FOR THE MEASUREMENT OF THE PROCESS OF SUCCESS PROMOTION and read it together. Ask trainees to explain each level. Lead a discussion to cover these points:

   a) The teacher's energy level applies to the Success Promotion scale in these ways:

1. Quickness of the teacher's responses--The teacher must have energy to be alert to cues.

2. Capacity to move--flexibility. The teacher must be able to move freely from one subject matter to another. If she cannot relate to her students except on a specified subject matter, she has low energy. Many teachers lecture all of the time, sticking to their lesson plans because they don't have enough energy to relate to students outside of the subject matter.

3. Reserves of energy--The teacher must be confident of her energy which she can call on to meet her students where <u>they</u> want to go.

b) This scale indirectly measures a teacher's anxiety. At level 1 and 2 the teacher is most anxious about covering her lesson material. Her anxiety decreases at level 3 and disappears through level 5.

c) At level 1 and 2, the teacher is more concerned with her lesson plan than with what her students are learning. She ignores questions and may use many criticisms (Flanders' category 7).

d) "Off the subject" does not indicate chaos, but the subject that the class strays to is important and relevant to students and/or <u>their</u> learning goals.

e) Ask yourself--"How aware is the teacher of what her students want to learn? Does she have a place for those desires in her classroom?" The teacher should be interested in each individual, in what he <u>wants</u> to learn, and in what he <u>is</u> learning.

2) Listen to two extremes of Success Promotion on the training tape. Have trainees rate energy level. Translate energy symbols into numbers: -- 1, - 2, ± 3, + 4, ++ 5. The trainees should read the scale taking into consideration the points listed under procedure 1: flexibility, teacher's goals versus student goals, and awareness of student needs. After reading the scale, the trainees should make adjustments in rating levels to include these qualities. Reveal and discuss master level ratings.

3) Use the transparency--Success Promotion Continua to summarize. Discuss inter-relationships.

4) Listen to various segments on the training tape and identify levels. Discuss when necessary. There is no wrong answer. Call on various trainees to explain why they heard it as they did. Explain the master ratings and that the purpose is for all to be able to hear it alike so as to match the master ratings. Refer discrepancies to Success Promotion Continua.

*5) Explain the scale sub-levels. Teachers may not fit levels exactly according to the descriptions in the scale. They probably won't. Therefore, there are sub-level ratings. If the teacher is a little better than the description of the level, she is that level plus .3. If she is about half way between two levels, she is the lower level plus .5. If she is not quite the upper level, she is the lower level plus .7. Listen to taped examples, and identify: (1) energy level, (2) scale level, (3) scale sub-level.

6) If necessary for reliability standards, repeat procedure 5 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the training session.

For objective 2 and 3:
Each trainee distinguishes between broad levels to 85% accuracy with master ratings.

RELIABILITY INDICE

For objective 4:
Each trainee identifies scale level and sub-level ratings to ± .3 agreement with master ratings for any given tape segment.

*Step 5 should not be undertaken until trainees can agree on broad level ratings.

A SCALE FOR THE MEASUREMENT OF THE PROCESS OF SUCCESS PROMOTION

Level 1. The teacher's verbal behavior is directed exclusively toward accomplishing her goals without regard to those of her students.
Examples:
(1) The teacher ignores students' questions.
(2) The teacher punishes student behavior which she deems is away from the lesson. She seems to pursue her pre-established schedule rigidly.

Level 2. The teacher's behavior is directed primarily toward accomplishing her goals, but occasionally she acts to help students achieve their self-directed goals.
Examples:
(1) The teacher responds to a few student questions, but ignores most of them.
(2) The teacher occasionally allows a student to discuss something "off the subject." She seems very aware of being-in-charge of the group and of covering a prescribed amount of the material.

Level 3. The teacher's verbal behavior is directed toward accomplishing her goals about 50% of the time and the students' self-directed goals about 50% of the time.
Examples:
(1) The teacher responds to about half of the students' questions.
(2) The teacher gets "off the subject" about 50% of the time in the sense that she enters into a dialogue with students. She seems to feel in charge of a group and concerned about covering a prescribed amount of material. However, she does not seem anxious about it.

Level 4. The teacher's verbal behavior is directed primarily toward helping her students accomplish their self-directed goals without regard to her own goals.
Examples:
(1) The teacher responds to most of the students' questions.
(2) The teacher "gets off the subject" easily. In fact, she seems to enjoy doing so and sustains it by eliciting a large number of student initiated statements. She gives only slight evidence of either being in charge or being limited by the amount of material to be covered.

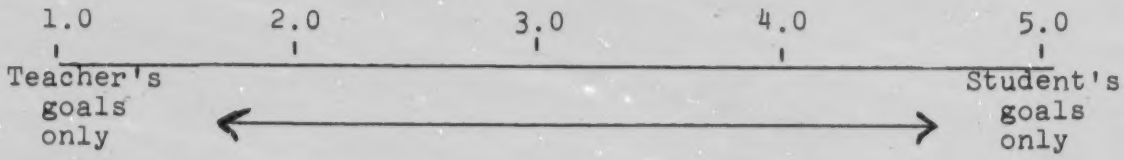
Level 5. All of the teacher's verbal behavior is directed toward helping the students accomplish their self-selected goals without regard to her own goals.
Examples:

(1) The teacher's approach is geared to cope with all the students' questions as they state them.

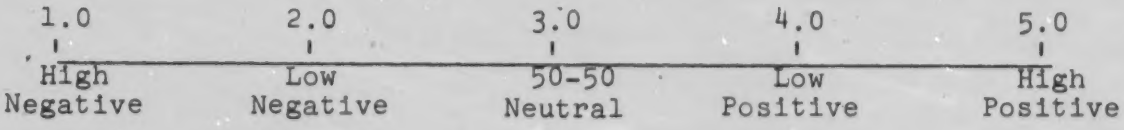
(2) The teacher's subject matter consists solely of the process of helping students accomplish their goals. She dialogues with them freely and openly without any evidence of being limited either by concerns about being in-charge or by the amount of material to be covered.

SUCCESS PROMOTION CONTINUA

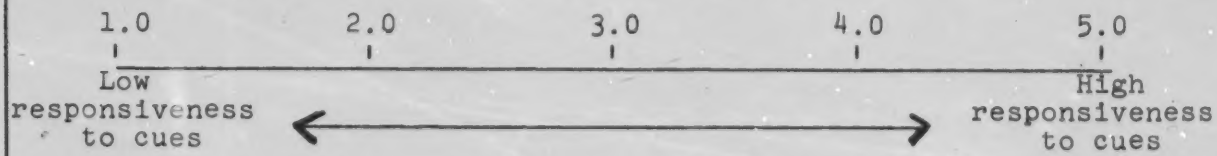
Directionality of Class Activities



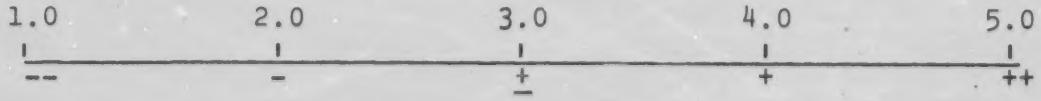
Response Energy



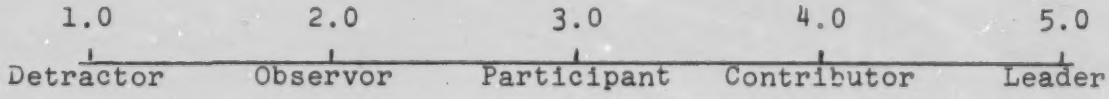
Moment-to-Moment Flexibility



Energy Level



Teacher's Contribution Toward Students' Goals



A SCALE FOR THE MEASUREMENT OF RESPECT PROVIDED BY THE TEACHER IN CLASSROOM INTERACTION

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in discussions and contributes his own ideas.

2) To present the Respect scale so that each trainee is able to use it as a tool to measure a teacher's respect for her students' learning abilities as well as to measure the amount of respect in all human interactions.

3) To present the 5-level measure of Respect incorporating energy level so that each trainee can distinguish between broad levels with 85% accuracy.

4) To refine the trainee's discernment so that he can identify not only 5 levels but three sub-levels (.3, .5, .7) within each level to ± .3 agreement with master ratings.

MATERIALS

1) Respect scale (copies for each participant)
2) Meaning training tape (Appendix C)
3) Master ratings of training tape (Appendix B)
4) Cassette recorder
5) Chalkboard and chalk
6) Pencils
7) Paper
8) Transparency
9) Overhead projector

PROCEDURES

1) Utilize individual copies to present A SCALE FOR THE MEASUREMENT OF THE RESPECT PROVIDED BY THE TEACHER IN CLASSROOM INTERACTION. Read the scale together. Have a trainee explain each level. Lead a discussion to cover these points:

a) The teacher's energy level applies to this scale in these ways: Reserves of energy--this aspect of energy applies in two extremes. The teacher who is not able to retain or conserve her energy, runs over her students in her hastiness to put out information. She ignores students and comments because she is so involved in what she has to say. Also, there is the teacher who has no reserves of energy to call upon. She fills up class time with her low level usage of time so that she won't have to meet students' problems or ideas. Both of the extremes in reserves of energy are classified as low energy level and are never rated above the 2 level on this scale.

b) When rating this scale, ask yourself: "Does the teacher expect the student to learn, to answer her questions? Is she interested in the individual student, the slow as well as the quick?"

c) The Cognitive scale goes hand-in-hand with this one. Respect levels 1-3 operate only on Cognitive categories 1, 2, 5, and 6. Respect level 3 may be accompanied by a few 4-7 patterns from Cognitive, but not many. Level 4 and 5 teachers on the Respect scale also use many instances of Cognitive categories 3, 4, 7, and 8. These upper levels may also be accompanied by categories 1, 2, and 3 on Flanders'.

2) Listen to two extremes of Respect. Have the trainees rate energy level and translate the energy symbols into level numbers (-- 1, - 2, ± 3, + 4, ++ 5). Trainees should then read the Respect scale and take into consideration the points listed under procedure 1. They should make adjustments in level ratings accordingly. Ask the trainees to share aloud the level of their ratings for Respect. Reveal and discuss master level ratings.

3) Use the transparency--Respect Continua to show the inter-relationships of various aspects of the Respect process.

4) Listen to several segments on the training tape and identify levels. Discuss when necessary. There is no "wrong" answer. Ask the trainees to explain why they heard it the way they did. Explain the master ratings and that the purpose is for all to hear it alike in the same way. Refer discrepancies to chart of the Respect Continua.

*5) Explain scale sub-levels. Teachers may not fit levels exactly according to the descriptions in the scale. They probably won't. Therefore, there are sub-level ratings. If the teacher is a little better than the description of the level, she is that level plus .3. If she is about half way in between two levels, she is the lower level plus .5. If she is not quite the upper level, she is the lower plus .7. Listen to taped examples, identify: (1) energy level, (2) Respect level, and (3) Respect sub-level.

6) If necessary for reliability standards, repeat procedure 5 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the training session.

For objective 2 and 3:
Each trainee distinguishes between broad levels to 85% accuracy with master ratings.

RELIABILITY INDICE

For objective 4:
Each trainee identifies levels and sub-levels to $\pm$ .3 agreement with master ratings for any given tape segment.

*Step 5 should not be taken until trainees can agree on broad level ratings.

A SCALE FOR THE MEASUREMENT OF THE RESPECT PROVIDED BY THE TEACHER IN CLASSROOM INTERACTION

Level 1. The teacher communicates a clearly negative regard for the students' individual abilities to learn.
Examples:
(1) The teacher structures the situation so the student takes little or no active part in the learning process; i.e., lectures or gives unnecessarily detailed, repetitive directions, etc.
(2) The teacher seems to mean it when she says, "I don't expect you to learn this. It's too difficult for you."

Level 2. The teacher communicates a somewhat negative regard for the students' individual abilities to operate effectively in learning situations involving memory and recognition (level 1 of Bloom's Taxonomy, 1967).
Examples:
(1) The teacher structures the learning situation so that the student can appropriately respond only by rote, but often fails to allow enough time for even that response; i.e., answers own questions or calls for "help" with the answer. The teacher communicates doubt that the students will be able to participate "correctly."
(2) The teacher says, "Even this is too difficult for many of you."

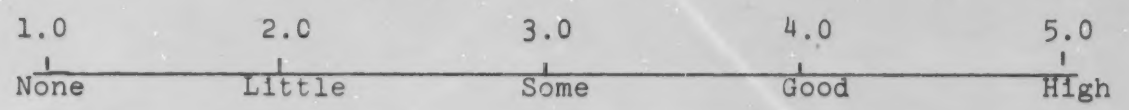
Level 3. The teacher consistently communicates a positive regard for the students' individual abilities to operate effectively in learning situations involving memory and recognition (level 1 of Bloom's Taxonomy), but not with the higher intellective processes; i.e., creativity, problem-solving, judgment.
Examples:
(1) The teacher structures the situation in such a manner that the students are expected and encouraged to respond at level 1 of the cognitive processes, but responses at higher levels are not appropriate.
(2) The teacher says, "I'll do the thinking. You pay attention and learn."

Level 4. The teacher consistently communicates a positive regard for the students' abilities to operate effectively in learning situations involving memory and recognition (level 1 of Bloom's Taxonomy), and occasionally allows the students to explore the higher intellective processes.
Examples:
(1) The teacher sometimes structures the situation so that she expects responses at higher levels. They are considered appropriate and are received by the teacher as worthwhile contributions to the learning process.
(2) The teacher says, "Let's not strain our brains, but take time to think of some new ways to do that."

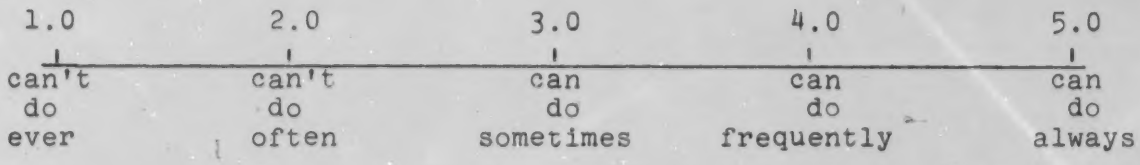
Level 5. The teacher consistently communicates a positive regard for the students' abilities to operate effectively at all intellective levels.
Examples:
(1) The teacher structures the learning situations so that she expects responses at higher levels. They are always appropriate and encouraged. Such responses are received by the teacher as worthwhile contributions to the learning process.
(2) The teacher says, "I'll bet we can think of a hundred new ways to do that."

RESPECT CONTINUA

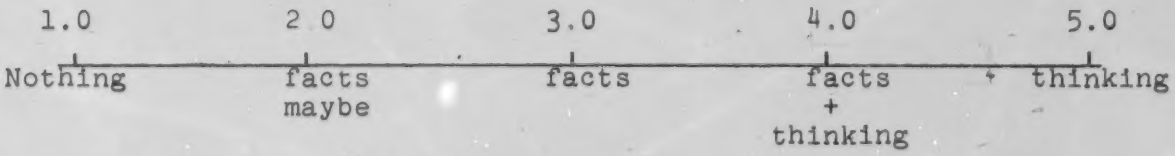
Respect



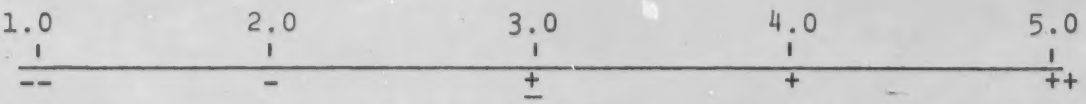
"Able" Projection



Expectancy



Appropriate Energy Level



A SCALE FOR THE MEASUREMENT OF STUDENT INVOLVEMENT

OBJECTIVES

1) To maintain a trust relationship so that each trainee participates in the discussion and contributes his own ideas.

2) To present the Student Involvement scale so that each trainee is able to use it as a tool to measure the students' interest and participation in the classroom activities.

3) To present the 5-level measure of Student Involvement incorporating energy level so that each trainee can distinguish between broad levels with 85% accuracy.

4) To refine the trainee's discernment so that he can identify not only the 5 scale levels but three sub-levels (.3, .5, .7) within each level to $\pm$ .3 agreement with master ratings.

MATERIALS

1) Student Involvement scale (copies for each trainee)
2) Student Involvement training tape (Appendix C)
3) Master ratings for training tape (Appendix B)
4) Cassette recorder
5) Chalkboard and chalk
6) Pencils
7) Paper
8) Transparency
9) Overhead projector

PROCEDURES

1) Use individual copies to introduce A SCALE FOR THE MEASUREMENT OF STUDENT INVOLVEMENT. Lead a discussion to cover these points:

   a) This scale is different from the other four process scales. This is the only one which measures the students. This scale is not directly concerned with the teacher.

b) Energy level is applied to students' behavior as demonstrated by their verbal behavior. Look for the same signs of energy as looked for in teachers. (Review Energy Level if necessary).

2) Listen to Student Involvement training tape segments. Rate the energy level of students. Translate energy symbols into numbers (-- 1, - 2, ± 3, + 4, ++ 5). If you can't hear the students in the whole segment, ask yourself how you would feel sitting there listening to that teacher. What kind of energy would you have? Then reread the scale and take into consideration the discussion and points listed under procedure 1, before assigning a rating level. Ask trainees what level of ratings they gave. Discuss why they heard it the way they did. Reveal and discuss master level ratings.

3) Show transparency--Student Involvement Continua. Discuss.

4) Listen to various segments on the training tape, identify the levels. Discuss when it seems necessary. There is no wrong answer. Call on various trainees to explain why they heard it as they did. Explain the master level ratings, and that the purpose is for all to hear it alike according to the master ratings. Refer discrepancies to Student Involvement Continua.

*5) Explain scale sub-level ratings. A teacher may not fit levels exactly according to the descriptions in the scale. Most of them probably won't. Therefore, there are sub-level ratings. If the students are a little better than the description of the level, they are that level plus .3. If they are about half way in between two levels, they are the lower level plus .5. If they are not quite the upper level, they are the lower level plus .7. Listen to taped examples and identify: (1) energy level, (2) scale level, and (3) scale sub-level.

6) If necessary for reliability standards, repeat procedure 5 with other training tapes.

OUTCOME INDICES

For objective 1:
Each trainee maintains an alert posture and participates in the training session.

*Step 5 should not be taken until trainees can agree on broad levels of ratings.

For objective 2 and 3:

Each trainee distinguishes between broad scale levels to 85% accuracy with master ratings.

RELIABILITY INDICE

For objective 4:

Each trainee identifies the scale levels and sub-levels to ± .3 agreement with master ratings for any given tape segment.

A SCALE FOR THE MEASUREMENT OF STUDENT INVOLVEMENT

Level 1. The student(s) is not involved in the classroom activity prescribed by the teacher.
Examples:
(1) He expresses a strong dissatisfaction with the present activity.
(2) He makes a remark unrelated to present activity.

Level 2. The student(s) participates about half of the time in the activity prescribed by the teacher.
Examples:
(1) He makes a response to the activity and follows it by one unrelated to it.
(2) He expresses mild dissatisfaction with the present activity.

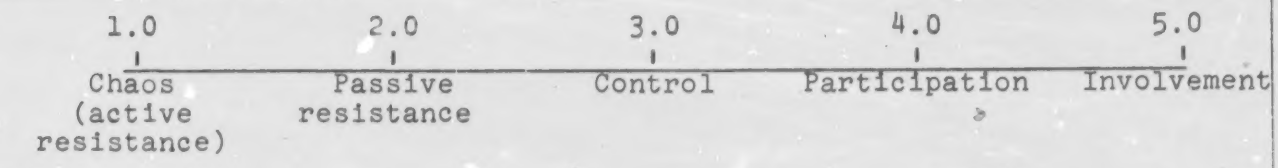
Level 3. The student(s) participates in the class actively, but only within the prescribed rules.
Examples:
(1) All his responses are related to the class activity, but he seems merely to be going along with the game.
(2) He expresses neither satisfaction nor dissatisfaction with the activity.

Level 4. The student(s) participates enthusiastically in the class activity, but sticks pretty much to the rules established by the teacher.
Examples:
(1) All his responses are related to the class activity, and he seems to enjoy it.
(2) He expresses mild satisfaction with the activity.

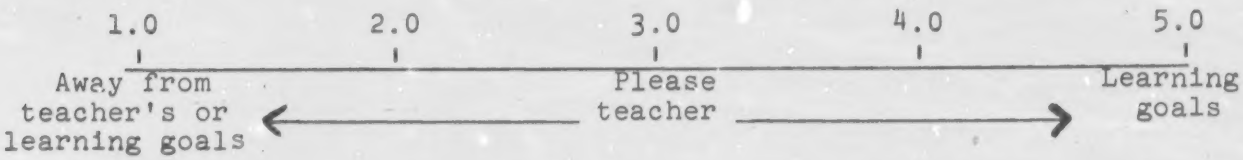
Level 5. The student(s) participates enthusiastically in the class activity and goes beyond the rules established by the teacher.
Examples:
(1) All his responses are related to the class activity, and his enthusiasm is reflected in his exploration of new ideas stemming from it.
(2) He expresses strong satisfaction with the activity.

STUDENT INVOLVEMENT CONTINUA

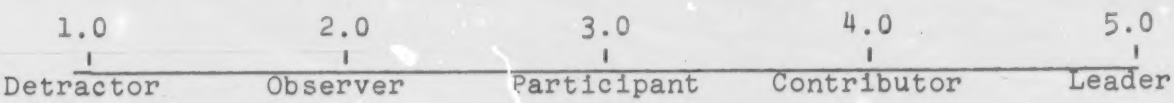
Student Involvement



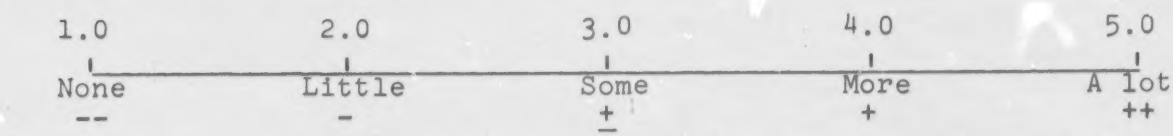
Student Directionality



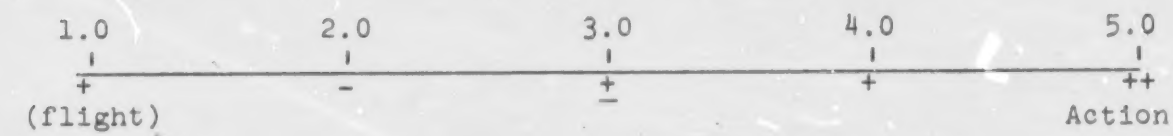
Student Contribution Toward Learning Goals



Learning Energy



Exhibited Energy



APPENDIX A

Segment	Illustration of Categories #1 High School English Class	Flander's Category	Cognitive Category
A	Teacher: I think you were very perceptive in writing your essays...	2	1
B	Teacher: ... and I think that from the essays you have written we can develop in the classroom a fine scale that would really be meaningful, one that would mean something to students who were trying to evaluate their teacher's performance and mean something to the teacher who is using the evaluation system.	3-5*	1
C	Teacher: Now, the first thing we do, some of you said your best-liked teacher and your best teacher were not the same person. Would you clarify that? Someone?	4	4
D	Student A: Sometimes we have a real good time in class but we don't learn anything.	8-9	7
E	Student B: Sometimes we have a bad time but we learn a great deal.	9	7
F	Teacher: Is it possible to have a good time and still learn something, though?	4	4
G	Student C: We should.	8	7
H	Teacher: Does that happen often?	4	2
I	Student D: We feel like we are wasting our time if we don't learn anything.	9	7
J	Teacher: I think that is a very important statement. It's nice to have fun but you are here to learn. Right?	2-3	3

*Moves from category 3 to category 5.

Segment	(Cont'd) Illustration of Categories #1 High School English Class	Flander's Category	Cognitive Category
K	Student B: If I want to have fun, I go out and drink beer.	9	5
L	Class: (LOUD, LONG LAUGH)	10	10
M	Student C: Go to the swimming hole or some place.	9	5
N	Teacher: Shouldn't learning be fun?	4	4
O	Student B: It should be fun but not funny.	8	7
P	Teacher: I think you have a valid point in that it shouldn't be a party; that learning should take place.	3	1-3
Q	Student A: If we go home and it has been fun in class, but then we can't work the problems and we don't know what to do and make bad grades, then it's not so funny.	9	7
R	Student C: Sometimes I worry about next year. I'm having fun this year, but I bet next year it is going to be hard.	9	7
S	Teacher: You are afraid you won't be prepared for next year.	1	9
T	Student: Yes, and I want my teacher now to teach the things I need to know then.	9	7
U	Teacher: O.K., you all indicated on your papers that you think that the teacher should be evaluated on the knowledge of the subject matter even though most of you think to yourself that most of your teachers were well prepared in this area.	3-5	1

(Cont'd)
Illustration of Categories #1
High School English Class

Segment		Flander's Category	Cognitive Category
V	Teacher: Are there any disagreements with that statement?	4	4
W	Student C: Some teachers may think they are well prepared but they aren't planning on our reading the book because the book may say one thing and then they may say something else completely different and then if you point it out to them they get angry.	8-9	7
X	Teacher: That is a good observation and it ...	2	9
Y	Teacher: ...brings up another quality that we will be talking about further down the line, the fact that some teachers resent ever being wrong.	3-5	1
Z	Student A: I think sometimes some of my teachers act like they are condemning some of my other teachers for something my other teachers are doing.	9	7
AA	Student C: I don't understand.	9	8
BB	Teacher: I do, I think he means that sometimes the teacher criticizes one of his other colleagues in front of his class.	3	3
CC	Student D: Right, some of my teachers do that.	9	7
DD	Teacher: You think that is not good?	4	4
EE	Student D: Yeah, 'cause it makes us think well there's a teacher talking about other teachers.	8-9	7
FF	Student C: And if they talk about other teachers, what do they say about us behind our backs?	9	7

Segment	(Cont'd) Illustration of Categories #1 High School English Class	Flanders' Category	Cognitive Category
GG	Teacher: Among teachers, they can call that professionalism. Their relationship within the profession itself. Would you like to add a category, professionalism to the scale we are developing?	3-4	1-2
HH	Student A: They don't act like teachers.	9	7
II	Teacher: You mean, they don't act as you think teachers should.	3	1-3
JJ	Student D: I had teachers who never learned all the students' names during the year.	9	5
KK	Teacher: You resent their lack of interest in you as an individual.	1	9
LL	Teacher: I'm afraid I'm pretty bad about that in my classes, too.	3-5	1
MM	Student A: Old lady Adams has pets and I don't think that's fair.	9	9
NN	Teacher: We must keep this on an anonymous scale because we are not dealing in specific personalities.	7	9

Segment	Illustration of Categories #2 High School Speech Class	Flanders' Category	Cognitive Category
A	Teacher: Good morning class. I want to remind you that your speech communication models are due Friday. Please do not wait until Thursday night to start them. Put them on my desk the first thing Friday.	6	1
B	(Three Second Pause)	10	10
C	Teacher: We were talking about the elements of persuasion yesterday when the bell rang. We noted that there were three components.	5	1
D	Teacher: Who remembers what they are?	4	2
E	Student A: Ethical proof, emotional proof, and logical proof.	8	5
F	Teacher: Good, now which of these do you think is the most important?	4	4
G	Student A: Ethical proof is the most important because if the speaker doesn't have a good personality, or image, or reputation, you won't listen to him.	8-9	7
H	Student B: I would think that the emotional aspect would be more important, because after all, he's trying to get the audience to accept what he's saying. He could do it better if he appealed directly to them.	9	7
I	Teacher: In other words, you think that the most powerful tool is in the audience and not in the speaker himself.	3	3
J	Student B: Well, yeah, if he can get the audience "with" him, emotions can sweep people along and be a strong persuasive power.	9	7

(Cont'd)
Illustration of Categories #2
High School Speech Class

Segment		Flanders' Category	Cognitive Category
K	Student C: But you're looking at it wrong. We want to know what the speaker does, not what the audience does.	9	5
L	Student B: It is the speaker using the audience's emotions, Dummy!	9	5
M	Student C: Dummy yourself! I can think what I want!	9	9
N	Teacher: It makes you mad to be labeled, expecially when you are reasoning the facts as you see them, and you both are exploring the same problem from different angles.	1	9-3
O	Student C: Ya know, I guess I just did what an audience would do if a speaker called them a name.	9	7
P	Teacher: That is a very perceptive statement. Since you react in anger to being labeled, you can understand how an audience would react if a speaker called them a name.	2-3	3
Q	Student B: Well, now I can see what happens if the speaker resorts to name-calling.	9	7
R	Teacher: This brings up a good point. Let's list speaker actions that arouse audience emotions. We can begin with what just happened here ...	3	3
S	Teacher: "Antagonizing audience by labeling them." Any other ideas about what arouses audience emotion?	5-4	1-4
T	(Three Second Pause) Teacher writes on board.	10	10

(Cont'd)
Illustration of Categories #2
High School Speech Class

Segment		Flanders' Category	Cognitive Category
U	Student D: I think a speaker would want to make the audience feel he is "one of them," you can trust me because we're alike type of thing.	9	7
V	Teacher: Great. We sometimes call that "Plain folks Appeal."	2-3	1
W	(Three Second Pause) Teacher writes on board.	10	10
X	Student E: How about when the speaker makes everything seem bad on one side and good on the other, and we're good, so naturally we all fight the bad.	9	7
Y	Teacher: Do you mean like saying Communism is bad, so we have to hate the Russians?	3-4	3
Z	Student C: Yeah, somethin' like that.	8	5
AA	Teacher: Since everybody else feels this way, you ought to feel this way, too. Sort of "you, too..."	3	1
BB	(Three Second Pause) Teacher writes on board.	10	10

Segment	Illustration of Categories #3 College Educational Psychology Class	Flanders' Category	Cognitive Category
A	Teacher: Good morning. Today I want to continue with our discussion of learning theory, so I'd like for you to get some paper and take notes. I'll collect the notebooks at the end of the week and grade them for completeness and order.	6	1
B	(Pause)	10	10
C	Teacher: Yesterday we discussed the idea that there are several different explanations for human learning, and yes, it is possible to divide them into two general groups. This is something like the biological classifications of animals and plants.	5	1
D	Teacher: Now, who can name the two major families of learning theory?	4	2
E	Student A: The two major families are behavoristic and field theory?	8	5
F	Teacher: Right. Now, which one of the families deals primarily with precise factors and which considers more general components of learning? Maybe it would be clearer to ask which of the two families is more scientifically rigorous?	4	2
G	Student B: The behavioristic family tends to be more scientifically rigorous, and tends to deal with very precise factors of human learning.	8	5
H	Teacher: Right. What are some reasons why there are different kinds of learning theories? That is, if we're talking about the way people learn, why have we come to different conclusions?	4	4
I	Student A: Well, people don't see things the same way. It's like the expression, "Beauty is in the eye of the beholder."	8	7

(Cont'd)
Illustration of Categories #3
College Educational Psychology Class

Segment		Flanders' Category	Cognitive Category
J	Student C: You know I think the real problem is that we're not scientific enough in our study of learning. What I'd like to see is for someone to try all the learning theories on the same group of students and find which one explains their learning.	9	7
K	Teacher: If I hear you right, what you'd like to do is to test the theories in a "real" situation so you could decide which one you think is the right explanation.	3	3
L	Student C: Yeah, surely one of the theories is better than the others, or at least we should have some clues after all the researching we've been doing.	9	7
M	Student B: Hey, it seems to me you're hung up on the notion that knowledge must be either right or wrong. You seem to like categories rather than dealing in shades of gray.	9	7
N	Teacher: You must see his thinking about learning theory as only a part of his more general thought processes which you feel are focused around categories.	3	3
O	Student C: Maybe I do deal in "Black and White" thinking but putting a label on me is not dealing with the problem of how people learn.	9	7
P	Teacher: If I'm not mistaken you feel a little upset because he avoided your question and tried to make your thought processes the problem. I certainly can understand your feelings and want you to...	1	9
Q	Teacher: ...know that I found your questions very stimulating. In fact, the class's enthusiasm has been very refreshing to me. I really like your active minds. Let's keep it going.	2	9

(Cont'd)
Illustration of Categories #3
College Educational Psychology Class

Segment		Flanders' Category	Cognitive Category
R	Student C: Great! I did feel defensive, but I'd like to suggest seriously that we conduct studies of learning theories in this class. I want to try them under controlled conditions. I really want to know about them!	9	9
S	Teacher: Wonderful! You make me feel excited about that approach.	2	9
T	Teacher: Does anyone have specific suggestions about how we could do this study?	4	4
U	Student: I do, but I'm not sure of all the details. We could be "Guinea Pigs" for each other and each of us could conduct his own experiment and see for himself.	8-9	7
V	Teacher: Good suggestion! We could each take one theory and apply it to a learning situation.	2-3	3

APPENDIX B

Master ratings for the three basic training tapes are displayed on the following pages. The master ratings on each sheet are arranged sequentially by number as they occur on that tape.

Some of the segments are repeated on the different training tapes. This is to demonstrate behavior correspondence among ratings on the seven instruments. Frequently, a behavior that is a high or low example on one scale is also a high or low example on another. The chart below shows the various locations of repeated segments.

On Flanders' and Cognitive Tape	On Meaning Tape	On Student Involvement
Segment 1	Segment 5	Segment 7
Segment 2	Segment 9	--
Segment 3	Segment 17	Segment 4
Segment 4	Segment 2	--
Segment 5	Segment 11	--
Segment 6	--	Segment 8
Segment 7	Segment 16	--
Segment 9	Segment 6	Segment 5
Segment 10	--	Segment 9
Segment 12	Segment 3	--
Segment 13	--	Segment 11
Segment 14	Segment 14	--
--	Segment 7	Segment 1
--	Segment 8	Segment 2
--	Segment 15	Segment 10

MASTER RATINGS FOR FLANDERS' AND COGNITIVE TRAINING TAPE

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
1	3 min.	Secondary History	Low energy level. Tone of voice monotonous; rate of speaking slow. Good example of low Success Promotion. Teacher fills up time with his own low level usage of time. Student resistance shown in questions: "What page?" "Explain in simple terms."	5, 9, 10	1, 6, 10	1.3	1.3	1.7	1.5	2.3
2	2 min.	Elementary English	Low energy level. Teacher's tone and rate of speaking have repeated pattern which detracts. Uses no praise.	4, 5, 8	1, 2, 5, 10	2.3	2.5	2.5	2.5	2.7
3	3 min.	Elementary Reading (Word analysis)	Low on all process scales. Teacher punishes. Tone quality of students: monotone, subdued.	4, 5, 6, 7, 8	1, 2, 5, 9	1.5	1.7	1.5	1.5	2.3

MASTER RATINGS FOR FLANDERS' AND COGNITIVE TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
4	4 min. 30 sec.	Elementary Science	Very structued class. Very low on all process scales. Teacher makes same errors she corrects students for making. Good example of clues to "faked" or "rehearsed" interaction.	4, 5, 6, 7, 8, 9	1, 2, 5, 6, 9	1.7	1.7	1.5	1.7	2.5
5	2 min.	Elementary Reading (Film Discussion)	This teacher uses Flanders 1, although not frequently. She interrupts the feeling response with her own feelings. High on all process scales.	1, 3, 4, 5, 8, 9	1, 2, 5, 6, 7, 9	4.0	3.5	3.5	3.7	3.7
6	3 min.	Secondary Social Studies	Some praise. Some involvement elicited. One confrontation (Flanders' 7) on segment with no proper base laid for it.	2, 4, 5, 7, 8, 9	1, 2, 4, 5, 7, 9	3.0	3.0	2.7	3.0	3.0

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
7	4 min.	Elementary Special Education Science (Animals)	Teacher uses good praise; it's specific. He understands his students and has great patience. Flanders' 7 occurs when child answers out of turn. He exhibits good level of Respect and waits for students to think.	2, 3, 4, 5, 6, 7, 8, 9	1, 2, 4, 5, 7, 9	3.3	3.5	3.3	3.5	3.5
8	3 min.	Secondary Biology	Praise is mainly in vocal tone. Very genuine. Uses no feeling words. Applies new concepts to familiar situations. Flanders' 6 is "calling on" students.	3, 4, 5, 6, 8, 9, 10	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	3.0	3.5	3.5	3.5	3.7
9	4 min.	Elementary Science	Class is completely student oriented. Teacher relates this lesson to his students at a very high cognitive level. Excellent example of Respect: "No, I believe you..."	2, 3, 4, 5, 8, 9	1, 2, 4, 5, 6, 7, 8, 9	4.5	4.5	4.5	5.0	5.0

MASTER RATINGS FOR FLANDERS' AND COGNITIVE TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
10	2 Min.	Elementary Science (Communi-cation)	Teacher accepts all answers. Allows students to discuss. Students are eager to participate, exploring new ideas within subject area.	2, 4, 5, 8, 9	1, 2, 4, 5, 7, 9	3.3	3.7	3.7	3.7	3.7
11	4 min.	Secondary English (Cross-word) Puzzle	Praise not specific, "Some-one knows their geography." Students are allowed to participate. Teacher talks "over" students if she does not recognize them. Think-ing-applying words, analyzing puzzle.	2, 3, 4, 5, 6, 8, 9	1, 2, 3, 4, 5, 7, 9	2.7	2.7	2.7	3.0	3.3
12	3 min.	Elementary English	Very person-to-person teaching. Accepts student ideas, works to expand them. Some feeling responses but without feeling words. On this level "making up sentences" is a thinking activity.	2, 3, 4, 5, 6, 8, 9	1, 2, 4, 5, 7, 9	3.7	3.7	3.5	3.5	3.5

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
13	3 min.	Secondary Science (Sound Vibration)	Excellent thinking stimulated. Teacher occasionally uses mild words to convey feelings. Responds to all of his students' questions. Students ask good questions.	2, 3, 4, 5, 8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	3.5	3.5	3.7	3.5	3.7
14	2 min.	Elementary Reading	Low Respect and Genuineness. Teacher answers own question; talks "down" to her students; role-plays "teacher" with tone and words.	4, 5, 6, 8	1, 2, 5	2.0	2.0	2.0	2.0	2.7

MASTER RATINGS FOR MEANING TRAINING TAPE

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
1	3 min.	Secondary Science (Sound Vibration)	High Respect & Student Involvement. Good encouragement. Praises with vocal warmth. Ability to question excellent--stimulates thinking.	2, 3, 4, 5, 8, 9	1, 2, 4, 5, 6, 7, 9	3.5	3.5	3.5	3.5	3.5
2	4 min.	Elementary Science (Birds)	Very structured class. Very low on all affective scales. Teacher makes same errors she corrects students for making. Good example of clues to "faked" or "rehearsed" interaction.	4, 5, 6, 7, 8, 9	1, 2, 5, 6, 9	1.7	1.7	1.5	1.7	2.5
3	3 min.	Elementary English	Very person-to-person teaching. Accepts student ideas, works to expand them. Some feeling responses but without specific feeling words. On this level "making up sentences" is thinking.	2, 3,	1, 2,	3.7	3.7	3.5	3.5	3.5

MASTER RATINGS FOR MEANING TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
4	3 min.	Secondary English	Teacher's tone quality subtracts-monotone, sing-songy. Uses little praise. She is mechanical.	2, 4, 5, 6, 8	1, 2, 5, 9	2.7	2.7	2.5	3.0	3.0
5	3 min.	Secondary History	Low energy level: tone of voice monotonous, rate of speaking slow. Little attention to student cues. Teacher fills up time with his low level usage of time. Student resistance shown in questions: "What page?" "Explain in simple terms."	5, 9, 10	1, 6, 10	1.3	1.3	1.7	1.5	2.3
6	4 min.	Elementary Science	Class is completely student oriented. Teacher relates this lesson to his students at a very high cognitive level. Excellent example of Respect: "No I believe you..."	2, 3, 4, 5, 8, 9	1, 2, 4, 5, 6, 7, 8, 9	4.5	4.5	4.5	5.0	5.0

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
7	2 min. 30 sec.	Elementary Music	Low energy level for teacher. Vocal monotone, subdued. Little affect. Students meet requirements of teacher but nothing more.	4, 5, 6, 8,	1, 2, 5	2.5	2.5	2.3	2.5	3.0
8	3 min. 30 sec.	Secondary Math	Teacher has low reserves of energy. Teacher's "good" is not praise, it is used sarcastically. Low Respect: "Are you sick today?" Student's response forced, hostile.	4, 5, 6, 7, 8	1, 2, 5, 9	1.3	1.3	1.5	1.0	2.0
9	2 min.	Elementary English	Low energy level. Teacher's tone and rate have repetitious pattern which detracts. Uses no praise or feeling words.	4, 5, 8	1, 2, 5, 10	2.3	2.5	2.5	2.5	2.7
10	2 min. 30 sec.	Elementary Reading	Low energy. Complete disregard for student. Every teacher response is punishing, almost a Flanders' 7.	5, 6, 7, 8	1, 5, 9	1.0	1.0	1.0	1.0	2.0

MASTER RATINGS FOR MEANING TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
11	2 min.	Elementary Reading (Film Discussion)	Teacher uses Flanders' 1 although not frequently. She interrupts the feeling response with her own feelings. High on all process scales.	1, 3, 4, 5, 8, 9	1, 2, 4, 5, 7, 9	4.0	3.5	3.5	3.7	3.7
12	2 min. 30	Elementary Math (Counting)	Good attention to cues. Allows student to talk about song. Much praise and encouragement.	2, 4, 5, 6, 8	1, 2, 5, 9	3.7	3.5	3.7	3.5	3.5
13	4 min.	Secondary Math	Good examples of Low Success Promotion: "That's all we're going to talk about." "That's irrelevant." Antagonistic tone; voice tends toward monotone, machine-gun.	4, 5, 6, 8, 9	1, 2, 4, 5, 6, 7	2.0	2.3	2.0	2.5	2.5
14	2 min.	Elementary Reading	Low Respect and Genuineness. Teacher answers own questions; talks "down" to her students; role-plays "teacher" with tone and words.	4, 5, 6, 8	1, 2, 5	2.0	2.0	2.0	2.0	2.7

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
15	2 min.	Elementary Reading	Good example of low Genuineness. Contrast "teaching" voice throughout segment with last statement on segment.	2, 4, 5, 6, 8	1, 2, 5, 9	2.5	2.5	2.5	2.5	2.7
16	4 min.	Elementary Special Education	Teacher uses good praise; it's specific. He understands his students and has great patience. F-7 (structuring not punishing) occurs when child answers out of turn.	2, 3, 4, 5, 6, 7, 8, 9	1, 2, 4, 5, 7, 9	3.3	3.5	3.3	3.5	3.5
17	3 min.	Elementary Reading	Low on all process scales. Teacher punishes instead of encouraging. Tone quality of students is monotone, subdued.	4, 5, 6, 7, 8	1, 2, 5, 9	1.5	1.7	1.5	1.5	2.3

MASTER RATINGS FOR STUDENT INVOLVEMENT TRAINING TAPE

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
1	2 min.	Elementary Music	Low energy level for teacher. Tone monotone, subdued. Little affect. Students meet requirements of teacher but nothing more.	4, 5, 6, 8	1, 2, 5	2.5	2.5	2.3	2.5	3.0
2	3 min. 30 sec.	Secondary Math	Teacher showed low reserves of energy. "Good" is not praise but sarcasm. Low Respect: "Are you sick today?" Student response forced, negative.	4, 5, 6, 7, 8	1, 2, 5, 9	1.3	1.3	1.5	1.0	2.0
3	1 min. 30 sec.	Elementary Health (Breakfast) Foods	Success Promotion and Student Involvement. Teacher accepts answers and praises. She is "with" her students. Directions (Flanders' 6) are "calling on" students to answer.	2, 3, 4, 5, 6, 8, 9	1, 2, 5, 9	3.5	3.5	3.7	3.5	3.7

MASTER RATINGS FOR STUDENT INVOLVEMENT TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
4	3 min.	Elementary Words	Low on all process scales. Teacher punishes verbally. Tone quality of students is monotone, subdued.	4, 5, 6, 7, 8	1, 2, 5, 9	1.5	1.7	1.5	1.5	2.0
5	4 min.	Elementary Science	Class is completely student oriented. Teacher relates lesson to students at a very high cognitive level. Excellent example of Respect: "No, I believe you..."	2, 3, 4, 5, 8, 9	1, 2, 4, 5, 6, 7, 8, 9	4.5	4.5	4.5	5.0	5.0
6	2 min.	Secondary Social Studies	Uses praise words. Accepts student ideas. Responds to feelings of students but without using feeling words. Students have high initiative.	2, 3, 4, 5, 8, 9	1, 2, 4, 5, 7, 9	3.3	3.5	3.5	3.5	3.3

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success promotion	Respect	Student Involvement
7	3 min.	Secondary History	Low energy level of teacher. Teacher fills up time with his low level usage of time. Student resistance shown: "What page?" "Explain in simple terms." Good example of little attention to cues.	5, 9 10	1, 6, 10	1.3	1.3	1.7	1.5	2.0
8	3 min.	Secondary Social Studies	Some praise. Some involvement elicited. One confrontation (Flanders' 7) on segment. No proper base laid for it.	2, 4, 5, 7, 8, 9	1, 2, 4, 5, 7, 9	3.0	3.0	2.7	3.0	3.0
9	2 min.	Elementary Science (Communication)	Teacher accepts all answers. Allows students to discuss. Students are eager to participate, exploring new ideas within subject area.	2, 4, 5, 8, 9	1, 2, 4, 5, 7, 9	3.3	3.7	3.7	3.7	3.7

MASTER RATINGS FOR STUDENT INVOLVEMENT TRAINING TAPE (Cont'd)

Segment	Time Approx-imate	Level-Subject	Comments	Flanders' Category	Cognitive Category	Meaning	Genuineness	Success Promotion	Respect	Student Involvement
10	2 min.	Elementary Reading	Good example of low Genuineness. Contrast "teaching" voice throughout segment with last statement on segment.	2, 4, 5, 6, 8	1, 2, 5, 9	2.5	2.5	2.5	2.5	2.7
11	3 min.	Secondary Science	Excellent thinking stimulated. Teacher uses mild words to demonstrate feelings. Accepts and responds to all of his students' questions. Students ask good questions.	2, 3, 4, 5, 8, 9	1, 2, 3, 4, 5, 6, 7, 8 9	3.5	3.5	3.7	3.5	3.7

APPENDIX C

The three basic tapes used in the rater training are:

1. Flanders' and Cognitive Training Tape
2. Meaning Training Tape
3. Student Involvement Training Tape

Copies of these training tapes are located at:

Juvenile Problems Research Section
Applied Research Branch
National Institute of Mental Health
5600 Fishers Lane
Rockville, MA 20852

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